

Game of the month: **QUAKE** Was it really worth the wait?

PCREVIEW • Issue 60

# PCREVIEW

THE COMPLETE GUIDE TO PC LEISURE

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**LAUGHTER**

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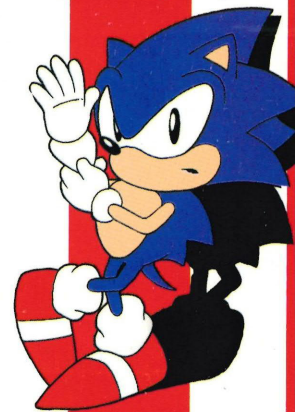
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Sega's PC gameplan



**CD REVIEW**  
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Video preview of the most lifelike desktop pet ever invented.



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Interactive sampler of the new version of Stephen Hawkings bestseller.



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Download over £700 worth of free games with this brilliant software.



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Madden '97, Syndicate Wars and more!

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● The Big Picture: movies, games and digital video ●

OCTOBER 1996



# GUARANTEED TO BE PLAYED RELIGIOUSLY



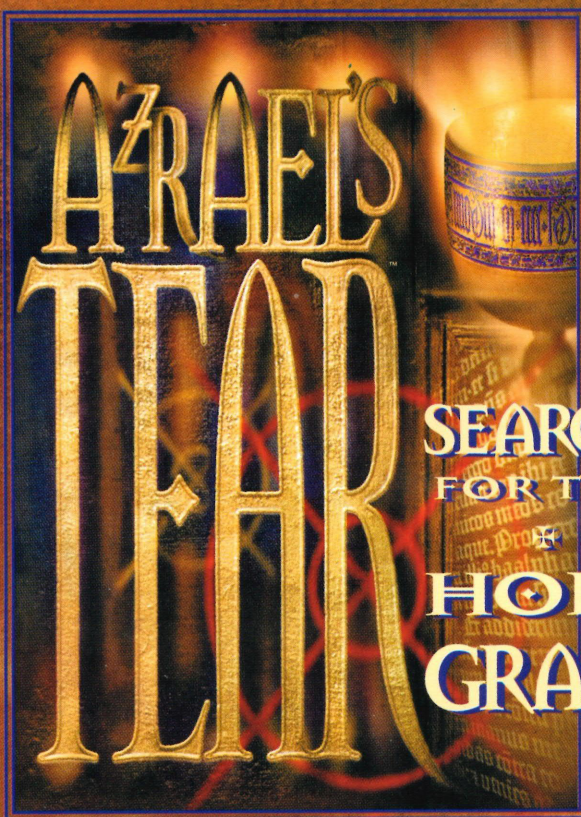
## STUNNING FEATURES INCLUDE:

✦ State-of-the-art visuals: Over 70 real time 3D environments with rich texture maps create a unique atmosphere.



✦ Imaginative puzzles: complex and sophisticated puzzles are integrated into the environment and require imagination and skill to solve.

- ✦ Stunning high resolution 640x480 SVGA graphics for head up display.
- ✦ Realistic character dialogue: each character has its own history and personality.
- ✦ Challenging combat, an important component of the game, the player is advised to fight tactically to avoid being injured and wasting precious ammunition.
- ✦ Crystal clear digitised sound effects: superbly realistic audio effects and a variety of atmospheric music tracks enhance the game experience.



"If I were an MP I'd pass a law making this a required purchase."  
5 out of 5 CD ROM Magazine

"Stunning Super VGA graphics tagged onto one of the best plots of the year make Azrael's Tear one of the most eagerly awaited RPGs for a while." - PC Power

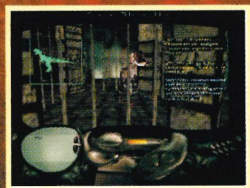
"It's pretty damned impressive Azrael's Tear looks like a winner, trust me." - PC Review

Azrael's Tear is a yardstick title, a game against which other adventures should be measured." - 90% PC Zone



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# This month

## Alive and Kicking

Exclusive review of the biggest breakthrough yet in PC artificial life. Starting out with just half a dozen eggs you raise a whole colony of little critters – feed them, teach them right from wrong, then get ‘em breeding!

## Which CD Writer?

With a CD-ROM writer you can burn your own discs for less than a fiver a time. But which of the many writers offers the best value for money? We have the answer... our best buy costs just over £500.

## Laughter

Everything you ever wanted to know about mirth. We go on-line and search through a mountain of CD-ROMs seeking a good belly laugh! Meet Monty Python, Mark Thomas, Stephen Fry and a cast of thousands on your PC.

## Feeling Super, Sonic

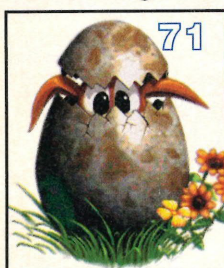
You’ve heard of Sega, right? The biggest coin-op designer in the world and the home of *Sonic the Hedgehog*. We reveal Sega’s plans to take on the PC in our special report.

## Living Colour

For around £300 you can pick up a colour printer that offers stunning, near photo-realistic print quality. Our essential buyer’s guide puts six of the latest models through their paces.

## QUAKE: THE FINISHED GAME

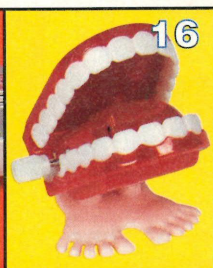
Not only do we bring you a review of the amazing new game from Id, but we also wave *Doom* a fond farewell in an exclusive interview with the makers of *Final Doom*. Look out for the first part of our *Quake* solution, starting on page 60.



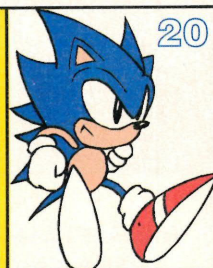
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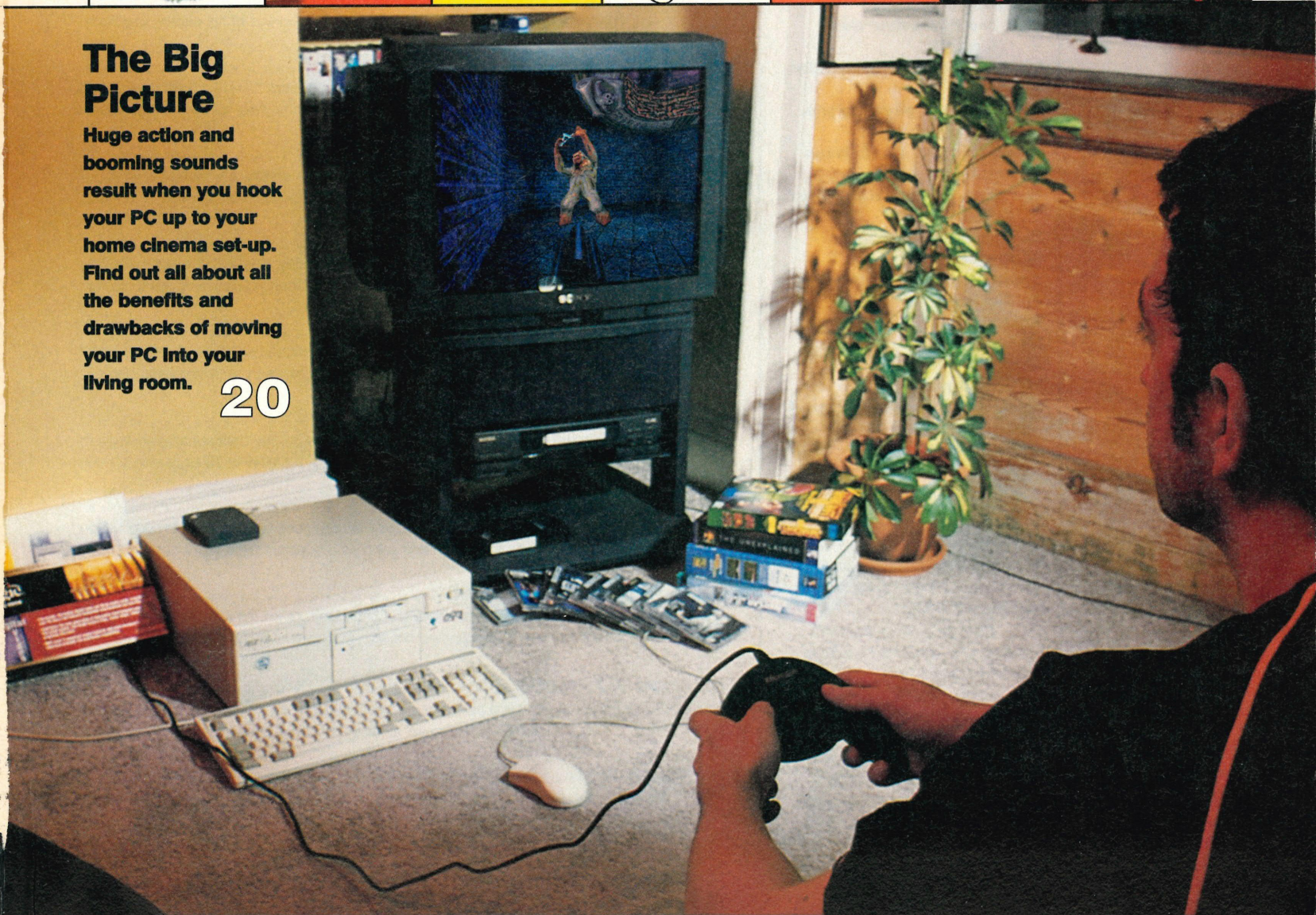


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## The Big Picture

Huge action and booming sounds result when you hook your PC up to your home cinema set-up. Find out all about all the benefits and drawbacks of moving your PC into your living room.

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## On CD Review...

## Player

11 games, including *Hind* and *Albion*. And don't miss the first installment of our *Quake Collection* – featuring upgrades, extra maps and new weapons.

## Multimedia

Four of the latest and greatest interactive demos including the feline pet *Catz* and the *Animation and Video Movie Collection*.

## The Works

6 applications, headed up by *PagePlus 2* – a full product previously sold for £100. Other goodies include working demos of *FormZ* *RenderZone* and *PC-Cillin Lite*.

## Shareware

Five top new shareware programs, including your very own Windows clock designer.

See  
page  
107

The CD Review booklet contains a quick reference guide to game controls. Turn to page 107 for your seven-page guide to using the disc, including projects, hints and tips.



**CD REVIEW**  
THE BEST IN CD-ROM

**ARCHIMEDEAN DYNASTY**

Blast your way through a complete level from the fantastic new underwater action game. World exclusive!

**CAKEWALK PRO AUDIO 5**  
Make and mix your own music with this hard disk recording and MIDI app.

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**A BRIEF HISTORY OF TIME**  
Interactive sampler of the new version of Stephen Hawking's bestseller.

**BASEBALL PRO 96**  
Hit a home run with this fully playable sports sim.

PLUS: Pinball Construction Kit, FormZ, Shattered Steel, PC-Cillin Lite and more!

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## A Brief History of Time .....76

Discover the origin of the universe and learn all about black holes with Professor Stephen Hawking. We review the revamped multimedia edition of his best-selling book.

## The X-mas Files .....8

Remember how Windows 95 was going to kick DOS into touch? This Christmas Microsoft launches a new assault on the games market, with nine new Win95 game releases.

## Bag Hundreds of Freebies .....14

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## Over 25 Quake Secrets Unveiled .....60

In a fantastic piece of investigative journalism, we uncover *Quake*'s deepest secrets to produce this mammoth exposé. It's twice the fun when you know where to snoop.

## The Making of Lords of the Realm 2 .....27

Step behind the scenes with us to see how Impressions is combining elements of *Warcraft II* with *Civ II*. Does *Lords of the Realm 2* herald a new generation of strategy-sim games?

## The Making of Archimedean Dynasty .....24

Deep under the scum which covers the oceans of our future, our descendants struggle to survive. Read our behind the scenes preview of the all-new 3D undersea blaster.

## Win a Colour Printer .....31

We've got three colour printers up for grabs, with a combined value of over £1000. All you have to do is answer a question and send us a postcard. And that's not hard, is it?

## Inside Independence Day .....75

Wondering how they made all those alien space craft, or what it's like to work with Jeff Goldblum? We see if you can find out with this brand new CD-ROM about the film.

## Madden 97: Exclusive Review .....40

Forget soccer for a minute, if you can, and run like a wild buck at what could be the biggest Gridiron challenge yet to hit the PC. Remember to wear your helmet.

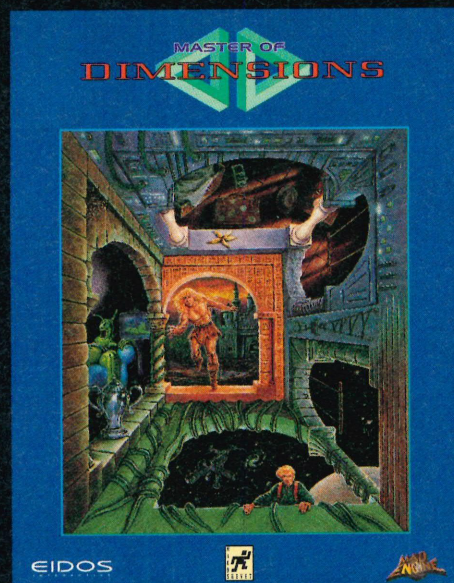
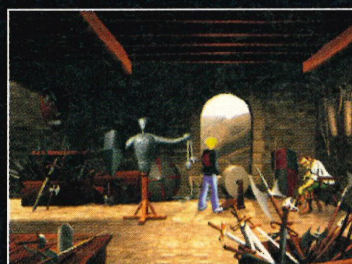
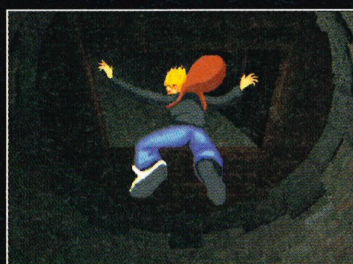
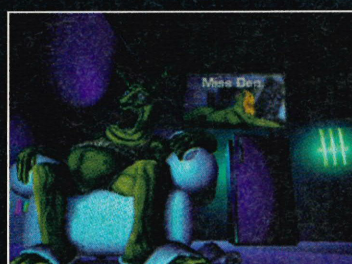
## Syndicate Wars: Bullfrog's Back .....50

The sequel to one of the best PC games from one of the best PC games developers. *Syndicate Wars* puts the terror and ferocity of the original into full 3D.

# MASTER OF DIMENSIONS

your destiny to adventure is through time and space

Once you've  
played it, all  
other games  
seem flat



Master of Dimensions is the ultimate adventure game. An odyssey which takes you through twelve dimensions in your attempt to summon the Wizard Merlin to save your world from destruction.

Some of these dimensions are similar to our time and space, others are radically different. Your journey could take you anywhere, from a dying space station to an Egyptian wall painting.

The friends, and foes, you'll meet along the way are as varied as the worlds they inhabit. Vampires, an alien slob and a voluptuous femme fatale are just some of the goodies, baddies and uglies you'll meet through Master of Dimensions.

Be warned, these are not conventional characters in a conventional game - appearances in Master of Dimensions can be extremely deceptive!

With twelve dimensions, over one hundred spectacular locations and amazing animation presented in a stunning mix of 2 and 3D graphics, Master of Dimensions puts the adventure game on a whole new plane.



EIDOS  
INTERACTIVE

AVAILABLE FOR PC CD-ROM

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# WELCOME

**Y**ou don't have to put up with tiny screens and tinny sounds any more. Yes, it's true. PCs now, more than ever, are being integrated into home entertainment systems. You can watch VideoCDs without dedicated hardware – a nippy Pentium and the right software will do the job. And with the new wave of converters you can even hook your PC up to your TV. That's why we've chosen to make this issue our Home Cinema special – pop by our wired up home on page 65.

Beyond the big audio visual delights, we go in search of laughter on CD-ROM and the Internet and reveal Sega's plans for world domination. Also, look out for our two buyer's guides where we round up the best colour printers and CD writers. Oh, and we review some game called *Quake* on page 35 too. Enjoy the issue. See you next month when we orchestrate a huge feature on making music with your PC.

James Binns, Editor, jbinns@futurenet.co.uk



## YOUR COMPLETE GUIDE TO PC LEISURE

Welcome to the UK's most discerning PC magazine. Every month PC Review brings you...



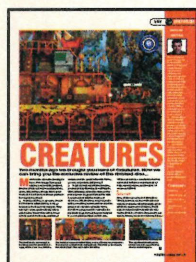
### PLAYER

We offer entertaining, detailed and stimulating games reviews that give you a feel for the games you want to buy. Our reviewers are experienced gamers who write with passion and authority. Also look out for behind the scenes reports from the hottest games studios as well as tips and in-depth solutions for hit games.

At last, Player can this month bring you a review of the finished version of *Quake*. But there's more to life than *Quake* – so we back it up with *Syndicate Wars*, *Madden 97* and the adventure *Broken Sword*.



Player is hosted by games editor Mark Ramshaw.



### MULTIMEDIA

There's more to entertainment than games, and that's where our multimedia section comes in. We pick out the very best of the latest CD-ROM releases and review them on the basis of how compelling their content is – we're not just impressed by fancy graphics, we're looking for real substance. Our multimedia reviews are the toughest in the business.

Ever wondered what it would be like to have a simulated life form living in your PC? Look no further than Multimedia this month as we bring you an exclusive review of *Creatures*, the revolutionary new artificial life disc.



Deputy editor Garrick Webster is your host for Multimedia.



### THE WORKS

This is where you come for the more serious side of computing. But we see no reason why dabbling with creativity software and producing your own graphics or music shouldn't be fun. The Works is also where you'll find our utility software, in-depth buyers guides, hardware projects and answers to our readers' problems.

The main topic of discussion in The Works this month is certainly sound as we review *Cakewalk Pro Audio 5*. But we also look at two CAD packages, three speech recognition programs and new remote computing software.



Technical editor Mat Broomfield presides over The Works.

### CD Review

Our CD-ROM is the finest cover disc you'll find on any PC magazine. That means the slickest, most reliable front end, and the best selection of exclusive game demos, productivity applications and multimedia software.

Plus each month we offer a complete commercial product – that means a fully working application previously sold in the stores for cash!



## The PC Review charter

The six rules that govern our testing policy...

**AUTHORITY:** We only employ expert writers. All of our team can call upon extensive experience in their fields.

**HONESTY:** We never allow corporate interests to get in the way of telling our readers the truth.

**DETAIL:** We always investigate companies promises – we never take their word for it!

**VARIETY:** Each month we select a mix of hardware and software to suit all tastes.

**QUALITY:** We actively seek out the best and turn down dozens of products offered to us for write-ups.

**VALUE:** You are spending your own money – we expect you to be careful with it. Price is always an issue.



Our coveted Essential accolade is only given to the very best products – the things you can't live without.

### PC Review Issue 60 October 1996

Editor: James Binns

Deputy editor: Garrick Webster

Art editor: Simon Barnes

Production editor: Jo Parker

News editor: Owain Bennallack

Games editor: Mark Ramshaw

Technical editor: Mat Broomfield

Art Assistant: Maria Wilson

CD-ROM editor: Graham Barlow

Production manager: Fiona Milne

Contributors: Anthony Atkinson, Chris Buxton, Paul Dias, Mark Donald, Rachel Harrison, Pete Lee, Mark Leigh, Mike Lepine, Will Rutter, James Thomas

Production co-ordinator: Manuela Green

Advertising manager: Susannah Mansfield

Sales executive: Jenny White

Business dev director: Richard Bogie

Key accounts manager: Shaun Manual

Senior ad manager: Duncan Ferguson

Group advertising manager: Simon Moss

Ad designers: Sarah Moody, Liz Tuck

Production technicians: Jon Moore, Jason

Titley, Simon Windsor, Chris Stocker,

Liz Cheney, Mark Gover

Group production manager: Judith Green

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Marketing (mail order): Simon Howarth

Marketing (subs): Simon Steele

Publicity & PR: Liz Ramsay & Jenny Press

☎ 0171 331 3920

Promotions manager: Tamara Ward

CD-ROM manager: Ben Rodd

Publisher: Jim Douglas

Publishing director: Jane Ingham

Managing director: Greg Ingham

Chairman: Nick Alexander

For all Licensing Enquiries regarding PC Review, please contact Mark Williams ☎ 0171 331 3920

Fax: 0171 331 3929

email: mwilliams@pne.co.uk

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### Getting in touch...

PC Review,

Future Publishing Ltd,

30 Monmouth Street,

Bath, BA1 2BW

☎ 01225 442244

fax: 01225 732275

email: pcreview@futurenet.co.uk

# An audience with...

# CHARLES CECIL

**Talking about a revolution? We interview Charles Cecil, head honcho at Broken Sword creators, Revolution.**

**Y**ork-based *Revolution* began life some five years ago, headed up by Charles Cecil, one-time programmer of Spectrum adventure games and software manager at US Gold and Activision. Debut adventure *Lure Of The Temptress* was followed by the sci-fi mystery *Beneath A Steel Sky*. Here Charles Cecil talks about his latest and greatest bundle of joy, the medieval connection, and more...

A modern day adventure with an underlying plot concerning the Knights Templar is pretty odd. How did the medieval connection come about?

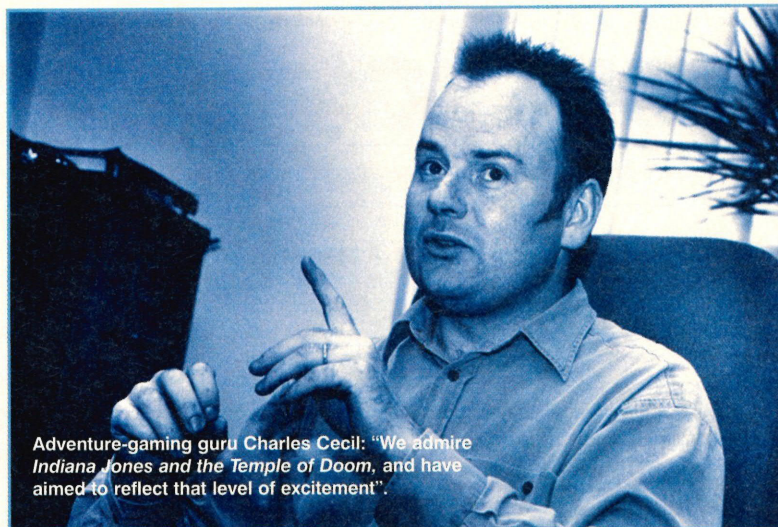
Talking to Sean Brennan (deputy managing director at Virgin Interactive) over a pint in the Kings Road, we were discussing interesting subjects for a game. He had read *Foucault's Pendulum* [a very clever and wordy Templar-based book by Italian writer Umberto Eco] and was interested in the Templars in general. We both loved the conspiracy aspect of this medieval group, and so a game design was born. But I foolishly mentioned the idea to *Generation 4* (a French magazine) during a presentation of our last game, *Beneath A Steel Sky*. They in turn talked about Templar games and, two years later, there are several games on this subject. But now you know who thought of it first!

Given the subject matter, it's unusual to have gone for a humorous approach. What was the reasoning behind this decision?

We've aimed to mix humorous characters with a complex story and puzzles. Serious games are often boring, because they take themselves too seriously. In *Broken Sword* we try to hook the player with a strong story, and then continue to entertain through serious plot development, and a range of interesting characters – some of which are humorous.

What do you imagine happened to the Knights Templar?

I believe that half of them will have joined other orders, and the others eventually developed the order into what is now the Freemasons. As for the treasure, I don't think there's any left. Our story is



Adventure-gaming guru Charles Cecil: "We admire *Indiana Jones and the Temple of Doom*, and have aimed to reflect that level of excitement".

much sexier than that explanation, though. The wonderful thing about writing a story about the Templars is that they were so secretive that we can stick to the few facts that exist and explore the legends, so no one can contradict our version! The history is purely there to add interest, in the same way that *Indiana Jones and the Temple of Doom* contained a few facts and lots of myths about the Arc of the Covenant. We admire the film and have aimed to reflect that level of excitement.

**Presumably the decision to make the central character an American was a commercial one.**

Yes. In Europe we're very used to Hollywood, and are happy with an American protagonist. But in America the protagonist must be American, even though they like other characters to be European.

**Do you perceive the adventure game market as being healthy right now?**

Very healthy; hard core gamers continue to love adventures, and I believe that it is adventure games that will open up the market, appealing to a wider audience who don't like arcade orientated games.

**And what of technical developments such as real 3D, first person viewpoints and so forth?**

At the moment 3D can't deliver, in real time, the quality of graphics we aim to achieve. That will change as technology marches on and then we will almost certainly go down the 3D route. First person works well for action games, and haunted house games like *Myst* or *7th Guest* where you don't actually talk to anyone. But for cinematic

purposes, I believe that third person works better. 3D is something we're exploring. I admire Gremlin for *Normality*, but feel that by making an adventure game first-person you lose the cinematic atmosphere. I feel that adventure games should be third-person. We won't consider 3D seriously until we can generate characters that don't look polygonal. The characters in recent games such as *Timegate* are not good enough.

**Any views on the games market in general?**

Games are getting better, but still have a way to go. I was disappointed by the recent offerings from Sierra and

LucasArts. I enjoyed *Command and Conquer* and *Warcraft 2*, and hope the next generation will combine the best features of both. I also play the odd Japanese game such as *Secret of Mana*.

**What aspect of *Broken Sword* are you most proud of?**

The same core team that worked on *Lure of the Temptress* and *Steel Sky* have written *Broken Sword*. And I feel that we have managed to jump to the next stage in presentation without losing gameplay. And I'm very pleased that we have not had pressure on us to cut corners to rush the completion of the product. Looking back, there is very little that I would like to change.

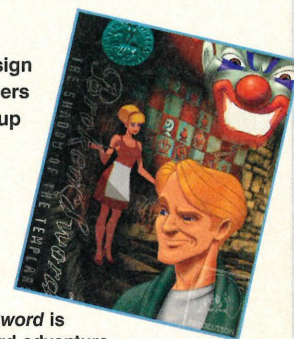
**Will *Revolution* release a non-adventure game?**

No. We're playing to our strengths, using our years of adventure gaming knowledge. It would be arrogant to go ploughing into other genres, just as it's arrogant for other developers to plough straight into adventures thinking they can get it right.

**Is *Broken Sword* a sign that the UK developers have finally caught up with the American adventure game developers?**

I hope so. You must judge for yourself.

*Broken Sword* is *Revolution's* third adventure.



## IN THE NEWS

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## PLAYER IN BRIEF

## Flying with Wales

Instant Access has added *Perfect Flight Deluxe England and Wales* to its range of *Microsoft Flight Sim* add-ons. As well as extra scenery, the package includes over 200 civilian and military airports. *Perfect Flight Deluxe England and Wales* requires *Microsoft Flight Sim 4* or higher, and costs £14.99.

## A Funny Old Game

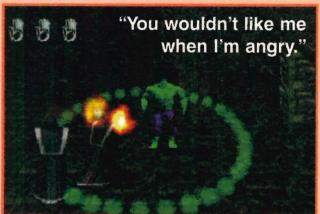
Massages by buxom blondes, beer gut toning and nobbling the ref – it's all part of the action in 21st Century's new football management sim. *It's a Funny Old Game* looks at the seedy underbelly of soccer, where a coach is more concerned with sponsorship than flat-backs four and fresh talent.



Swindon FC, full of high hopes in *It's a Funny Old Game*.

## Rwoooar!

Button your flies and tie down your jeeps, the *Incredible Hulk* is coming to the PC to throw heavy things about and outdo Brad Pitt in the denim busting stakes. Early screenshots from Eidos confirm he's retained his green pallor, but will he still sport his stylish Liam Gallagher haircut?



## Re-start the season

Fans of *Championship Manager 2*, should check out the new *Start of the Season* expansion disk. It brings you up to date with all developments and costs £14.99.

## NEWS

MICROSOFT  
BRINGS CHRISTMAS

... and it's still only August

Microsoft has reaffirmed its commitment to making Windows 95 the gaming platform of the future with the announcement of the release of nine new games titles.

Holding a 'Christmas in August' press day in the prestigious Belgravia area of London last month, the company decked out an entire house with Christmas regalia and demonstrated to journalists five of the new game titles, plus a slew of 97 updates to all the main MS multimedia discs.

One year old now, Windows 95 was launched in a flurry of hype and advertising. Microsoft was keen to

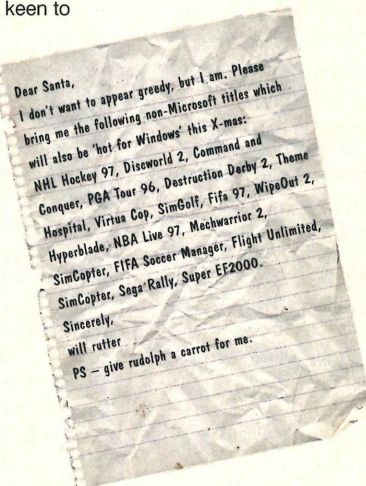
emphasise that the new operating system would mean an end to the DOS commands and fiddly configuration files gamers often found baffling. One year on, however, it's still commonplace to have to install games in DOS and run them in Windows 95 through a DOS shell. Over the past year, however, developers have come to grips with 32-bit coding for Windows 95 and, as Microsoft wishes to emphasise, this Christmas might really see the final wave bye-bye from DOS.

The biggy as far as Microsoft is concerned will undoubtedly be *Flight Simulator 6.0* for Windows 95. Though the company has never purported to being a games developer, it is thanks to *Flight Sim 5.0* that it is still the sixth biggest seller of games worldwide. The new incarnation of *Flight Sim* will feature richer-than-ever cockpit detail, but it's the graphics of the ground below which will truly amaze.

Fly over London, for instance, and you'll be able to see Tower Bridge, Buckingham Palace and the Houses of Parliament. An aerobatic stunt plane and the Boeing 737 have been added to the hangar selection and you'll be able to take flying tutorials with the champ US flyer,



Microsoft's audaciousness knows no bounds. This year William the Heretic's hordes announced that Christmas would occur on August 15. Ho Ho Ho.



## A SERPENT IN THE HAND

Okay, who sells the most joysticks in the UK? Gravis? Logitech? That's a no, and a no again. The answer is Microsoft. Over the past few months, the world's biggest seller of software has also become the UK's biggest seller of joysticks.

More than a million MS SideWinder joysticks have been sold worldwide and not content with that Microsoft now

plans to snake its way into the joypad market too. October 24 will see the release of the SideWinder joypad. With six programmable buttons, the SideWinder adds two trigger buttons at the top end designed for Windows 95 gaming. As you can see, it is ergonomically designed for comfort and durability, and has an eight direction digital cross-key pad.



## Not Word Perfect

It seems that even Microsoft is fallible. The megacorp has recently apologised in Mexico and Spain last month for synonyms included in the Spanish language version of Word 6.0. The thesaurus suggested "savage" and "man-eater" as synonyms for Indian, a lesbian was a "pervert", whilst "civilised, white and Aryan" were suggested for "western". Microsoft blamed an old dictionary for the mistakes.

## HEAT

Patty Wagstaff. The MS developers have aimed to make *Flight Sim 6.0* as easy to use as possible and it's due for release on October 24th.

Before that day, however, you'll be able to get your mitts on *Deadly Tide* and *HellBender*, two 3D blasters for Win95. *HellBender* is the sequel to last year's *Terminal Velocity* clone *Fury3* and will support network play.

*Deadly Tide*, is a single player on-rails underwater blaster featuring graphics designed by the people behind the special effects in *SeaQuest DSV* and *Star Trek: The Next Generation*. After that *HellBender*, *Deadly Tide* and the pro-basketball game *NBA Full Court Press* will hit the shelves in September, along with the insanely destructive *Monster Truck Madness*.

October will see the release of a revamped *Microsoft Golf 3.0* and there will also be a realistic footy game in the form of *Microsoft Football* and a strategy wargame called *Close Combat*.

To emphasise Microsoft's commitment to games, the world's biggest software company will be doing pre-Christmas promotions with third party games publishers as well. All the top games companies have major releases lined up for the platform.

In all, Microsoft is expected to spend £9 million in Europe promoting Windows 95 as the hot platform. And if everything Microsoft says is true, by this Christmas you may never have to drop into DOS to play a game again.

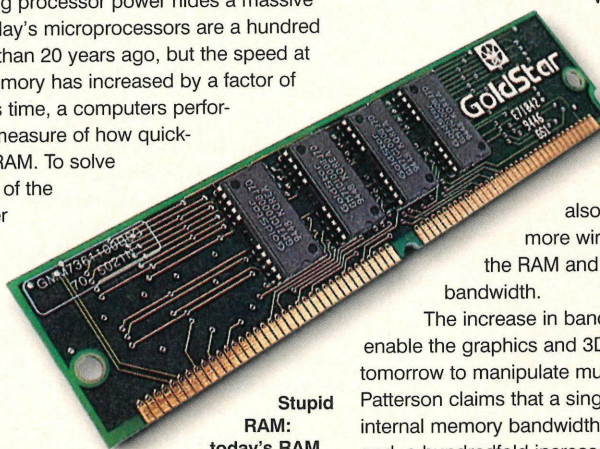
The most remarkable feature of the joy pad is the fact that you can daisy chain four of them for use in multiplayer games to create one long serpent of joy. At the top of the pad is a socket into which can be plugged another joy pad or a SideWinder joy stick. This way you'll be able to switch between the joy pad for certain games and the stick for others. The SideWinder joypad will sell for £39.99.

## QUICK SILVER SILICON

Smart thinking will bring faster RAM

Ever increasing processor power hides a massive problem: today's microprocessors are a hundred times faster than 20 years ago, but the speed at they can access memory has increased by a factor of just ten. In ten years time, a computers performance might be a measure of how quickly it can access its RAM. To solve this bottleneck, one of the worlds top computer scientists, Dave Patterson at the University of California, Berkeley, has proposed Intelligent RAM, or IRAM.

Your PC uses DRAM for its main memory, which is cheap but painfully slow. DRAM chips usually have four output lines, so even if you connect eight in parallel, you can still only read 32-bits of data at once. What IRAM



Stupid RAM: today's RAM chips are slow and limited in bandwidth.

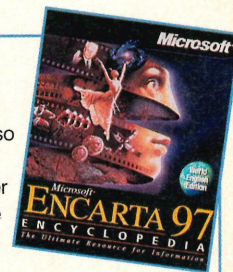
would do is physically merge the microprocessor with the RAM, and place the two on one chip. This speeds up memory access, simply because it's closer to the processor. But more importantly, this proximity also means you can run many more wires between the processor and the RAM and so massively increase the bandwidth.

The increase in bandwidth is vital, because it will enable the graphics and 3D-intensive applications of tomorrow to manipulate much more data at once. Patterson claims that a single Gb IRAM should have an internal memory bandwidth of nearly 1000 Gbs per second, a hundredfold increase over the fastest computers today. As the man who helped invent RISC technology, you can't doubt him. "IRAMs will need no more than computer network connections and a power plug," he recently predicted. "If they need more memory they will get more processing power and vice versa."

## MULTIMEDIA 97

While Windows 95 gaming is what Microsoft would like to focus on, the company is also preparing to bring out 1997 versions of all its multimedia products. *Encarta*, the *Encarta World Atlas*, *Cinemania* and *Music Central* have all been tweaked and added to over the past year and some of the titles even boast new interfaces. In addition, each will feature monthly updates of information available via the Internet.

This year, Microsoft adds to its range *Bookshelf: British Reference Collection*. This mega-tome will contain the Chambers Dictionary, the Hutchinson Concise Encyclopedia, the Bloomsbury Treasury of Quotations, Roget's Thesaurus and the English edition of the Concise Encarta 96 World Atlas. *Wine Guide* will be re-released as version 2.0.



## LIVE OUT YOUR FANTASY

Help Quickthorpe unlock the Fable

When it comes to football, fetishes and mythical adventures, everyone knows fantasy is better than reality. So *Fable*, the new point-and-clicker by French developer Simbiosis, scores immediate points by setting itself in the four worlds of the Balkhanes, a medieval realm of legend and magic.

You play Quickthorpe, the only chap in your village gutsy enough to scour the Balkhanes for the jewels which will restore the seasons to your land. Little do your fellow villagers realise, as they cheerily wave goodbye and settle down to enjoy a never-ending Indian summer, that your quest will lead you to The Archive, where you will discover the real meaning of 'the fable'.

All the character animation and design in *Fable* was done by

Jacques Muller, who used to work as an animator for Disney. Backing up the SVGA graphics is a fully narrated script, with over 27,000 words of dialogue. Keep your ears open for some familiar voices. For instance, one dull grey chap sounds awfully like a certain prime minister.

Perhaps the budget was running low, but to complete the narration *Fable*'s publisher, Telstar, enlisted the services of *Scratchy and Co*, the ITV Saturday morning children's show. They launched a competition which resulted in Watford's Jason Reed, aged 12, beating off nearly 10,000 other hopefuls, to create the voice of the games Cabin Boy. Jason, and everyone else, will get a chance to hear his recording debut when the game is released in September, priced £39.99.



This jar is full of water, which avoids the question is it half-full or half-empty?



Jason Reed, 12, was last seen receiving electroshock therapy.

## MULTIMEDIA IN BRIEF

### A New Perspective

Rupert Murdoch's News Multimedia, the company behind the excellent *Makers of the 20th Century*, is preparing to launch a new series of current affairs discs called *Perspectives*. Thus far, four titles are planned. The first two discs will deal with the contemporary issues of Planet Earth and Womens Rights, while the remaining pair deal with the World Wars. Each disc will cost £44.99.

### Coarse Fishing



Fishing is a sport enjoyed by around three million people in the UK, yet CD-ROMs on the subject are rare. Addressing this gap in the nation's digital consciousness is the *Art of Coarse Fishing* by Eagle Eye.

The disc boasts expert advice

from fishermen including Bob Nudd, Matt Hayes and Des Taylor. The hooking and netting of several species is covered, along with biological information about them and instructions on where to go to catch the best specimens. *The Art of Coarse Fishing* will cost £29.99 from Koch Media. Watch out for our review each month.

### Explore the Solar System

Maris Multimedia is to add to its line of space discs with *Solar System Explorer*. Similar in style to the well-known Redshift title, *Solar System Explorer* enables you to plot a planetary journey from planet to planet using true-to-life physics. Hence, you'll have to break the orbit of Earth and slingshot through space to the next planet you wish to see. You'll also be able to follow the paths of the space probes Gallileo, Viking and Voyager. £39.99 is the price.

### In the Mode

Ever wondered what a CD-ROM soap opera might be like? Well now you can find out if you buy Corel's three-disc interactive drama, *Mode*. In the tale, you are invited to an exclusive fashion and art party being held by the mad genius artist, Vito Brevis. Your task is to meet and communicate with people and on the way you'll become embroiled in a mystery and possibly even a romantic liaison. For more information, or if you want to join ClubMODE, have a look at <http://www.clubmode.com>. *Mode* costs £39.99.

### Return of Leonardo

The intellectual magnitude of the 15th Century Renaissance artist-scientist Leonardo da Vinci is given the multimedia treatment with *Leonardo 2.0*. Originally released about two years ago, the disc features a timeline of Leonardo's life, 3D animations of some of his inventions and reproductions of 30 of his finest paintings. Now, however, Leonardo has been revamped for Windows 95. This time around it has over 100 new articles and additional information on Leonardo's inventions. It is selling for £29.99 through SoftKey.

### Let the Cointreau Flow

The drinks distiller, Cointreau, is to package a CD-ROM. Beginning this month, when you buy a bottle you'll get a free CD single. Down the offy, then.



# THE DARKENING

Space battle brightens up with Origin's latest blaster

**Y**ou know that feeling you get when you watch *The Player* or *Pulp Fiction* for the first time and on comes a star in a cameo role? "Oooh, it's so-and-so from er thingy," you say. Well, Origin's latest gives you the chance to do just that as it has more cameos than a retrospective of 17th Century paintings.

*Privateer 2: The Darkening* stars Clive "Chancer" Owen as You as Lev Arris as Man Who Has Forgotten His Identity And Is Forced To Fly Around The Stars Trading And Fighting And Interacting In Full Motion Video. And in said FMV sequences he gets to interact with such stellar thespas as John Hurt, Christopher Walken, David McCallum, Brian Blessed, David Warner, Amanda Pays Jurgen Prochnow and Mathilda May. Not a bad cast list by any standards. (However, you'd think that - as it took them took six weeks to film the FMV stuff at Pinewood - they could've found a part for Steve Buscemi somewhere - he hasn't been in much lately and needs the work).

The Origin/Electronic Arts combo are keen to stress that *The Darkening* is much, much more than a linear interactive movie like, say, the first *Privateer*. There is a central plot for you (as Clive as Lev) to follow but the

game has a much looser structure than its predecessor which allows you

to roam across its 18

planets and 20

space stations

as you see fit. You can

trade commodities across the

three solar systems of the game, fly

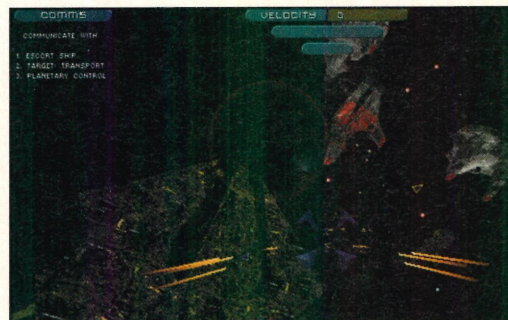
off on any of a huge number of unique mis-



"This baby gives you everything you need for launching a modern intergalactic war."



Some of the cities in *Privateer 2* are massive, and were made up from thousands of polygons.



Space Opera battles on a truly stellar scale are promised in *Privateer 2: The Darkening*.

sions and even take part in a 100-ship battle. With 60 different locations for the player to explore, 18 ships to equip and fly and 40 in total, *The Darkening* certainly has a far greater scope than previous games set in the *Wing Commander* universe. And with all the talent involved it could well be the most spectacular in the series yet.

*Privateer 2: The Darkening* is to be released on October 25th. But don't worry, you don't have to wait, because we'll bring you the exclusive demo and full review next month.

## ROUND 3.0

### The Browser Battle Continues

**B**oth Netscape and Microsoft have released the latest versions of their Web browser software. Microsoft's *Internet Explorer 3* does pretty much everything Netscape's market-leading *Navigator* can do, and what's more it's free. However, by giving away *Internet Explorer* for free with new PCs and via Internet Service Providers, Microsoft has provoked Netscape into writing to the US Justice Department, accusing its rival of anti-competitive behaviour. Netscape charges \$49 for *Navigator 3*, after a 90 day free evaluation.

Both browsers offer enhanced Mail and News support, a bundle of extensions supporting features such as VRML and audio transmission, enhanced text formatting and improved security, with 128-bit encryption. Each company's Web site offers plenty of reasons as to why their browser is superior, but at this stage in the game neither seems to be a clear winner.

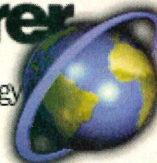
One advantage of *Internet Explorer* is that its Active X technology can be scripted in Visual Basic, a familiar language to multimedia developers.

In contrast, Netscape's Java requires programmers to learn a new and difficult language, and so far

**Navigator 3 is a solid product with over 30 million potential upgradees.**



Microsoft  
**Internet Explorer**  
with  
ActiveX Technology



**Internet Explorer is free, and it comes with free access to several popular service providers.**

few have. Since Active X also supports Java, Microsoft can't lose, whether Java erupts or goes cold.

It's breathtaking to consider how quickly Microsoft has caught up with Netscape. Bill Gates believes the Internet is the future, and he's backing it up with his company's unequalled resources. Netscape's legal protestations hinge on this, alleging that by leveraging its awesome desktop dominance to force other rivals out of the Internet market, Microsoft is damaging consumer choice. For example, Netscape claims that many PC suppliers have been offered cash reductions for Windows 95 if they include *Internet Explorer* in their software bundles. Netscape estimates that if these OEM suppliers were to choose another company's browser, it would collectively cost over \$100 million a year. Further controversy centres on Microsoft's NT Web Server.

As yet, the wolf cries remain just that. Remember, no company has yet done battle with Microsoft, selling a mass-market application and won. Netscape's historical lead - it still claims over 85% of Internet users - may soon seem a historical quirk. Just ask WordPerfect or Apple.

## STOP, THIEF!

### How to prevent your PC being stolen

**C**omputer theft is the fastest growing crime in the UK according to Buckingham Management Ltd (BML), a Northern based firm of security consultants. Trebling since 1990, estimates at the current cost of hi-tech heist range from £400 million to more than a billion pounds.

Although much of this crime has hit businesses, home users cannot afford to be complacent. "Sneak thieves have had a field day ever since they learned that stealing computers and their components is a very lucrative business to be in," say Chris Bentley, Managing Director of BML. We asked him to evaluate the three most common ways of fighting back against the thieves.

**1. Fix the computer to its desk, using steel cable and fixing plates.**

**Pros:** It's cheap, easy to fit and deters the opportunist thief.

**Cons:** Can damage your desk and thieves can still get inside the PC. Worse, it's unlikely to deter a persistent criminal and makes moving your PC a hassle.

**2. Enclose the CPU in a metal housing, then fix the case to the floor or desk.**

**Pros:** Offers a good level of protection for the CPU by preventing internal chip theft.

**Cons:** Once again, it can damage your desk and makes moving a chore. Also, it only protects your CPU not your monitor or printer. Expensive and difficult to fit, some housings offer only poor ventilation to the PC.

**3. Uniquely mark your PC with coloured dye, DNA ink or extra strong labels.**

**Pros:** Cheap and straightforward.

**Cons:** Offering no real protection against theft, it's only really effective if the culprit is caught with the goods. Some processes can damage floppy drives and hard disks.

Alternatively, BML offers a new choice with their own security product, PC Protector. At its heart is a central tilt sensor and alarm card, which plugs into



Your top-of-the-range PC is two grand's worth of temptation to your local villains.

your PC. This connects to your peripherals with proprietary resistor tabs, which activate the alarm if anyone tampers with them. The unit is controlled by a special electronic key system, and a vibration sensor comes on automatically whenever your computer is switched off.

"What we set out to do was provide a low-cost, simple to install device which would give the end user the edge in the fight against computer theft, whether it involves the whole system or simply components," says Bentley. PC Protector costs £49.99. Contact CCA Marketing on 0161 429 7095.

## THE BRIGHT SIDE

If your computer is stolen, you'll be much happier if you insured it. Sun Alliance claims that many house contents policies specifically exclude computer risks, which is why its launched Complete Computer Cover. It promises minimal downtime and swift replacement. Call 0171 560 3398 for more details.

## BOLDLY GO GET EM

### Viacom NewMedia unveils Star Trek Voyager and Enemy Nation

**T**here's a common theme to Viacom NewMedia's latest titles. Both *Star Trek Voyager* and *Enemy Nation* enable you to slaughter strange life-forms on alien planets – although the gameplay in each is quite different.

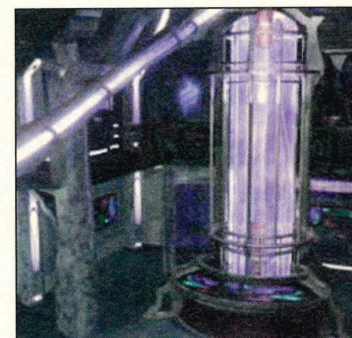
In *Star Trek Voyager*, you take command of the all-new Starship Voyager and its entire lycra-clad crew. Unlike its predecessor, *Deep Space Nine: Harbinger*, *Voyager* promises an

immersive, interactive adventure and also includes full ship-to-ship combat.

When your buddies are accidentally beamed into the callused and bewarted hands of the Kazon sect, it's up to those left on the Voyager to overcome all manner of aliens and puzzles to retrieve them.

The game features innovative AI Team technology, which enables you to control each member of the crew individually.

In contrast, *Enemy Nation* is a strategy game, a sort of *Sim City* meets *Command & Conquer*. The action takes place on an uninhabited planet, and as the leader of one of several nations battling for the unspoiled realm, it's your job to land there, build a filthy metropolis and then waste your enemies and their cities in all-out war. City planning is a whole new challenge when you're jostling apartments and condominiums with assault factories.



If you want to find out exactly what this does, then you'll have to wait for *Star Trek Voyager*.

## What's the Intranet?

Many of Netscape's registered users – the kind of people who're likely to pay for *Navigator 3* – are Intranet users. With a name derived from the word Internet, an intranet is a network with restricted-access that works like the Web, but isn't actually part of it.

Intranets enable resources to be shared without making confidential information accessible to everyone with Internet access. An intranet is usually owned and managed by a corporation.

## FIVE SITES FOR SEPTEMBER

### VEGGIE HEAVEN

[www.webserve.co.uk/Veggie/index.html](http://www.webserve.co.uk/Veggie/index.html)

Next time your date announces "I'm easy, just as long as its not meat" while beef bolognese bubbles on the hob, race over to Veggie Heaven. It tells you nearly everything you can do with a courgette, and provides plenty of statistics on the cattle trade, so you won't be stuck for small talk.



bles on the hob, race over to Veggie Heaven. It tells you nearly everything you can do with a courgette, and provides plenty of statistics on the cattle trade, so you won't be stuck for small talk.

### YOUR HAWAIIAN NAME

[hisurf.aloha.com/Find.html](http://hisurf.aloha.com/Find.html)

This site has a simple mission, to

make sure everyone in the world knows their Hawaiian name. If you think this sounds dull, try it out in the office. You'll be amazed at the South Seas spirit you'll discover. James will never be the same once he's renamed Kimo and Hau oli Mau will deny that Tanya ever existed.

### KIDS DOCTOR

[www.kidsdoctor.com/](http://www.kidsdoctor.com/)



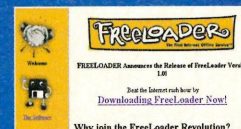
If you reckon your kids spend too much time in front of the PC,

go to Kids Doctor and type Square Eyes into its search box. You'll get a host of info on eye problems in return. The creators obviously know a thing about kids – they've concentrated on stopping them crying first rather than offering medical information on the history of the flu virus.

### FREELoader

[www.freeloader.com/](http://www.freeloader.com/)

Here's a site that might revolutionise your on-line life. It's the home of Freeloader, a program that can download your favourite pages while you sleep. The result is Web browsing at CD-ROM type speeds, yet you can



still navigate from a Freeloaded page to other pages as normal. By grabbing your favourite pages at a quiet time you could save both time and money.

### OFF THE RACK

[www.eneews.com/off\\_the\\_rack/](http://www.eneews.com/off_the_rack/) The latest e-zine, this is one of those self-consuming magazines about the media. The site features cutting edge design and a great selection of articles.

## THE WORKS IN BRIEF

### Touch Me

If you're cheesed off with your mouse and you can't hack a trackball, then maybe the Glidepoint Touchpad 2 is for you. Basically, it's a little pad that you wiggle your finger over to move the pointer, as you'll find on some portables. Contact Lindy on 01642 765275 for more details, including the price.



The Touchpad 2 claims twice the resolution of a typical mouse.

### Doom Boon

The new WingMan Warrior from Logitech has won a thumbs up from John Romero, of *Doom* fame. With its a 360-degree spinning knob, in addition to the traditional joystick, Romero believes, "WingMan definitely enhances players' skills. Now some of the difficult *Doom* manoeuvres, such as the circle strafe, can be quickly mastered." The Wingman Warrior is due out later this month at £69.99.

### Alps launch brand

Alps has been supplying other computer makers for 40-odd years, but now it is set to launch its own brand. One of the first products to hit the high street is this stylish replacement keyboard.



The Alps keyboard has comfortable key positioning and separate game buttons.

### Better than Microsoft

If you use Microsoft Word, maybe you could use *Factotum for Word 3.0*. According to Online Design, its Edinburgh based developers, it improves Word with extra hypertext, navigational and text processing capabilities. *Factotum for Word 3.0* costs £52.88.

### Cheaper Scanning

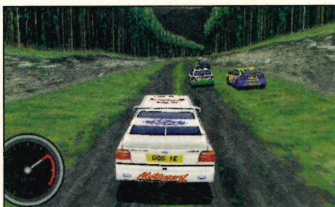
The scanner market received another eager player this month, with Watford Electronics' new Aries 4800P setting new entry level standards. The 24 bit colour scanner can operate at up to 4800dpi, with a 300dpi scan achieved in just 40 seconds. 16.7 million colours, OCR and image manipulation software, for £199 can't be bad.

### Xara Upgrade

The latest version of CorelXARA, the Web graphics creation tool, has been announced by Xara Ltd. Version 1.2 includes palette optimisation and advanced diffusion dithering for GIFs. Existing customers can download the upgrade from <http://www.xara.com/>

## BELT UP

Europepress has scored the ultimate coo with its upcoming *Network Q RAC Rally Championship* – the RAC's



Controversially, COS 1E decided to stick to the road. He never lived it down amongst his rallying mates.

own Motorsport's Division has given it an unreserved thumbs-up. Due for release in late September, *RAC Rally* promises to be one of the most interesting, gruelling and testing motor events of the year, just like the real



Ah, the joy of the open road. *Network Q RAC Rally's* realism extends right down to the padded Eskimo gloves.

thing. You'll face 28 stages, through mountains and dense dark forests, with nothing but a handbrake turn between you and a multiple pile-up.

To create the six cars in *Network Rally*, the designers risked life and limb to record the real sounds of the vehicles. Meanwhile the landscape rolls by faithfully recreating the race in panoramic, fully-textured 3D. It's got full weather effects and the action happens both by day and night.

*Network Q RAC Rally Championship* will be out at the end of September and costs £39.99. Cheaper than buying a Proton Wira and taking off up the mountains.

## ROMERO SPLITS

Quake creators lose top dog

John Romero, id Software's design guru and co-owner, has left the Texas based company to found his own software house. Romero, widely credited as the design genius behind *Doom* and *Quake*, cites id's increasing focus on 3D game technology as the main reason for the amicable split. His new company, tentatively named Dream Design, will work on a variety of games, and focus on Romero's love of game design.

"John has been integral to the incredible growth and notoriety of id Software," said Jay Wilbur, id's business guy. "We wish him the best of luck and can't wait to see his creations." Meanwhile John Romero stressed he'll remain on close terms with id and won't be poaching any of their staff.

Glory days: John Romero pictured designing *Doom*.



## GIZMOS The best of the material world

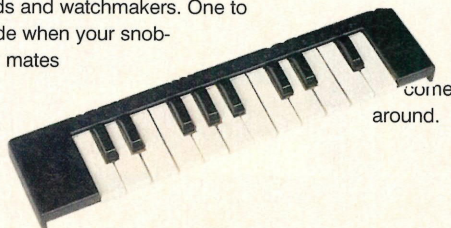
### FLIP AWAY

If you haven't tried out our pinball covermount this month, go away and do so now. Fun wasn't it? Pinball will be even more realistic with these flippers from Thrustmaster. Tastefully coloured in blue, they blend in with the sides of your keyboard to produce an authentic pinball table. You might want to

refrain from punching in the monitor when you miss the triple ball bonus though. The Wizzard costs £55.

### MUSICMAKER

This keyboard will turn you into Mozart, maybe. Its creators, Music Sales Ltd, supply it with a CD-ROM game that takes you through jammings, drumalongs and melody sessions, to teach you music in a fun way. But what about the gizmo? It costs £24.99 and is made of the cheapest plastic money can buy and whilst the idea of it perching over your computer keyboard is innovative, in practice it's only comfortable for kids and watchmakers. One to hide when your snob-by mates



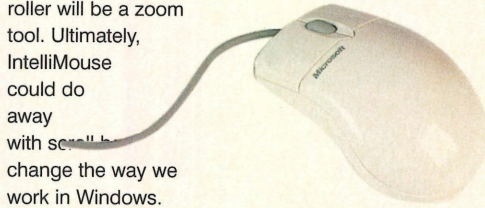
### DIBA INTERNET

Looking for leading edge technology? Keep an ear open for Diba, a US start-up with a distinctly Tigerish approach to their customers. With their self-styled 'information appliances' (which aim to be as easy to use as, say, a kettle) Diba might well invent the next Walkman. Pictured is Diba Internet, a stylish prototype Web browser. Other Diba models include Diba Kitchen, an electronic recipe book that sits beneath your worktop and Diba Mail, a phone with email. Check out [www.diba.com](http://www.diba.com) for more details.



### INTELLIMOUSE

Anyone thinking of investing in Microsoft's *Office 97*, *Explorer 3* or *Encarta World Atlas 97* might also consider replacing their mouse. Why? Because Microsoft's new IntelliMouse, with its central rolling tool, adds functionality to all these applications. For *Explorer* and *Office*, for instance, you'll be able to scroll up and down long documents quickly, easily and automatically. With *World Atlas*, on the other hand, the roller will be a zoom tool. Ultimately, IntelliMouse could do away with scroll bars and change the way we work in Windows.



# A Righteous sight from Orchid Technology

**O**rchid Technology has just unveiled perhaps the best 3D accelerator board yet. The new card, named the Righteous 3D, provided a truly breathtaking real-time performance when we saw it earlier this month. It has a host of hardware features, including excellent filtering, anti-aliasing and translucency effects that compares well with even dedicated games consoles.

Because their card supports Direct 3D, Orchid can release patches that will enable it to work immediately with existing 3D games such as *Actua Soccer*. Games already under development for the 3Dfx Interactive Voodoo Graphics processor at its heart, include *Prey*

from 3D Realms and *Tomb Raider* from Core.

Uniquely, Righteous 3D has no 2D graphics capability. Instead, it can operate alongside your existing Windows graphics accelerators, switching between the two on demand. Orchid reason that since many of us already have superior 2D accelerators, duplicating it on their 3D card is just expensive and wasteful.

By concentrating on just boosting 3D performance, Orchid hopes it can sell Righteous 3D at a competitive price – probably around the £200 mark. It should be available by the end of September and we'll review it as soon as we can.



The Righteous 3D board can render more than 2 million triangles per second.

## I'VE STARTED SO I'LL FINISH

*Mastermind comes to the PC*

**T**he hit quiz programme, *Mastermind*, has at last found its way onto CD-ROM thanks to BBC Multimedia.

Naturally, the black leather chair, illuminated by a single bright light, forms the centrepiece of the disc's aesthetics but key to the game is the involvement of Britain's best known quizmaster, Magnus Magnusson. Via the 5,000 pre-recorded questions on the disc, covering over 50 specialist subject areas, it is his voice which conducts the interrogation. And that's not all. Magnus also appears in the

disc's video introduction and between rounds. At the conclusion of each challenge, it is he who presents the crystal winner's cup.

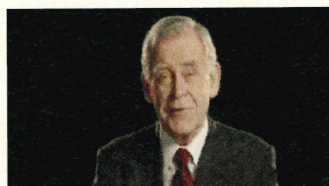
*Mastermind* will cost £29.99.

Riding alongside Magnusson in the BBC's first tilt at the multimedia market are Nick Park's claymation characters Wallace and Grommit. In their honour Auntie's multimedia division has created a screensaver fun-pack. Famous clips from the award-winning W&G films *A Grand Day Out*, *The Wrong Trousers* and *A Close Shave* are included, along with a quiz game that

will test the mettle of anyone claiming to be a real fan. Two other games will be on the disc which costs £19.99.

The *Mastermind* and *Wallace and Grommit* discs will be accompanied by two kids titles. *Noddy and The Animals of Farthing Wood*.

And just in case you were wondering, Magnus does say, "I've started so I'll finish."



Mastermind just wouldn't be Mastermind without Magnus.

## 'D5' - 'HIT' - 'E1' - 'MISS'

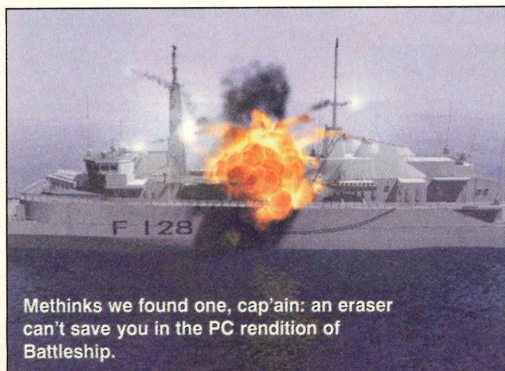
**Hasbro launches all-out PC assault**

**T**he second most popular pencil and paper game of all time is sailing to a PC near you. Hasbro's *Battleship* CD-ROM is true to the old schoolboy favourite, with players tracking their opponent's awesome fleets across an alphanumeric grid, whilst doing bad Scottish/Russian impressions of Sean Connery in the *Hunt for Red October*.

The PC version will, of course, offer substantial improvements on the traditional game, including full-motion video, fleets that actually move, spy planes, sea mines and gamefields of up to a massive 640x640 grid. "It's set to become the definitive naval war game,"

claims Nadja Singh, of Hasbro Interactive. "Everyone is catered for, from warfare buffs to those just looking for cracking action." *Battleship* gets a champagne launch this winter.

Meanwhile, remember *Risk*? The ultimate student game of global nuke-free conquest is even better on the PC, which doesn't need those little counters that unsportsmanlike players would knock over in a tantrum. Featuring two CDs for multiplayer gaming, *Risk* CD-ROM even enables you to travel back in time to the Napoleonic era, where you can pit your wits against some of history's greatest ever commanders.



Method we found one, cap'tain: an eraser can't save you in the PC rendition of Battleship.



Battleship blends the original's archaic alphanumeric grid with real-time shooting and explosions.

## THE CHARTS

**Top 10 selling PC CD-ROMs**

- 1 (-) Formula 1 Grand Prix 2 . . . Microprose
- 2 (2) Duke Nukem 3D . . . . . US Gold
- 3 (-) Theme Park . . . . . EA
- 4 (4) Civilisation 2 . . . . . Microprose
- 5 (5) Championship Manager 2 Domark
- 6 (3) Worms . . . . . Ocean
- 7 (-) Wing Commander 3 . . . EA
- 8 (1) Settlers 2: Vena, Vidi, Vici Blue Byte
- 9 (6) Command and Conquer . Virgin
- 10 (-) Little Big Adventure . . . EA

## CONTACTS

Alps . . . . .00 353 29-70677  
 BBC . . . . .0181 576 3898  
 BML . . . . .01457 871960  
 Casio . . . . .0181-4509131  
 Corel . . . . .01703 814142  
 Eidos . . . . .0121 625 3366  
 Electronic Arts . . .01753 549442  
 Europress . . . . .01625 859444  
 Fractal Design . . .00 33 1 69419722  
 Instant Access . . .0181 205 2596  
 Koch Media . . . .01420 541880  
 Lindy . . . . .01642 765275  
 Logitech . . . . .01344-894300  
 Maris Multimedia .0171 488 1566  
 Microsoft . . . . .01734 500741  
 Music Sales . . . .0171 4340066  
 Netscape  
 Comm . . . . .home.netscape.com  
 News Multimedia .0171 782 3982  
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 SoftKey . . . . .0181 964 9149  
 Steinberg Music  
 Sales . . . . .01284-702600  
 Telstar . . . . .01932 222232  
 Thrustmaster . . .01454-855050  
 Twenty First Century 01235 851852  
 Watford Electronics 01582 487777  
 Xara . . . . .www.xara.com/

# Next Month in PC REVIEW

## MAKE BRILLIANT PC MUSIC

**We give you the software and show you how**

Our guide to PC music lets you into the secrets of creating and mixing your own music – from rock to rave. It's easier than you think!

### Lightwave 5

You've seen the staggering effects in TV shows like Deep Space Nine. Now the app they all use has come to the PC – and we're reviewing it!

### Everything you ever wanted to know about... sport

Watching other people exercise on CD-ROM and the Internet.

### The Ultimate Kit for the Ultimate Games

The add-ons you need to exploit four of the best PC games ever...  
*Quake*, *F1-GP2*, *Warcraft 2* and *Virtua Fighter*.

### Buyers Guides Your next graphics card

Thinking about buying a 3D accelerator? Stop! Don't do anything until you've read our special report. What do you get for your money?

### Point and Click

With the prices of digital cameras falling, we round up the market leaders.

### How to...

**Work from home:** The facts you need to know

**Make your PC run faster:** Five tricks that won't cost you a thing

**Write your own CD-ROMs:** The software you'll need – head to head review

### CD Review

Exclusive playable demos of *Madden 97*, *Sonic CD*, *Lords of the Realm 2*, *Links LS*, and *Davis Cup Tennis*.

**On sale Thursday 10 October**

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**FULL  
PRODUCT**  
We give away  
Jammer Hit Sessions –  
the full, commercial  
music application,  
which normally sells  
for £49!

Exclusive playable demo of  
*Privateer: The Darkening*, the  
latest and greatest game to  
come from the Wing  
Commander universe. Plus  
in-depth four-page review.

PRIVATEER

THE DARKENING

## FREEBIES

### FREE LABELS

The world's leading label manufacturer Avery is making its first appearance in our Freebies section with over £1500 worth of free labels. The reason for this unprecedented display of generosity? An opportunity to plug its terribly good labelling software Avery Label Pro. Except you won't need the software to use this printer paper as almost all major word processors support the templates. Avery is giving away 100 packs of labels, worth £16.45 each, with a cool 40 A4 sheets offering 14 labels per sheet. That's 56,000 stickers, number fans. Blimey! Send a postcard with your name and address on, stating whether you want laser or inkjet stock to this address:



56,000 free stickers from Avery.

**Labels Freebie**  
Consumer Centre  
Avery Office Labels  
Gardner Road  
Maidenhead  
Berkshire  
SL6 7PU

### FREE ADOBE DISC

If you wanted to get a good feel for what programs the pros are using then you could do a lot worse than start with the Adobe Product Sampler Disc. It's packed with working demos, tutorials and stacks of other files. Look out for demo versions of the latest incarnation of the killer photo manipulation app *PhotoShop* and DTP program *PageMaker 6*. Adobe has 50 copies of the disc just waiting to be sent to the first readers to write in. Send a postcard and remember to include your name and address to:

**Adobe Sampler Freebie**  
Waterview House  
Number 1 Roundwood Avenue  
Stockley Park  
Uxbridge  
Middlesex  
UB11 9AE

### FREE Z GOODIES

To celebrate the launch of the Bitmap Brothers latest strategy blaster *Z*, Time Warner Interactive has a mountain of goodies to give away. There'll be 30



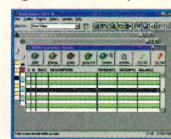
Almost 100 items bearing that lucky Z brand... for free!

winners, all of whom will get a heavy metal key ring, a tasteful pin badge and a highly desirable mouse mat with Commander Z on it. The first two lucky entries plucked out of our metaphorical helmet will also get a copy of the game plus an extremely limited edition black bomber jacket bearing the distinctive Z logo. Not bad eh! We're handling the entries on this one, so write with your name and address to:

**Zed Freebies**  
PC Review  
Future Publishing  
30 Monmouth Street  
Bath  
BA1 2BW

### FREE MONEY (... SORT OF)

In the first of what we hope will be a fruitful relationship with freebies, Europress Software has agreed (after much coercion) to give away 10 copies of its new domestic accounts software *Mini Office Home Finance*. The package, which requires little or no financial



**10 copies of Mini Office Home Finance... for free!**

training, actually works on three levels – from Beginner to Professional – so whatever your expertise you should be okay. The software, which normally sells for £29.95 is available on a first come first served basis to anyone who rings 0800 454330 (that's a UK free number). If you don't make it into the first 10 then never mind... the nice people who answer the phones may have something else up their sleeves. And if your heart's set on *Mini Office Home Finance* then next month we'll bring you a working demo of the program.

### FREE FORMZ MANUALS

If you've already run our brilliant *FormZ* demo on CD Review then you'll know by now that it's a pretty sophisticated tool. So complex in fact that we've pestered the UK publishers to appear on our Freebies page with a manual give-away. The first 50 people to write to Gomark will get a free quick reference card, a copy of the *FormZ* magazine, and both demo users manuals – for the two modules *Renderzone* & *Synthesiser*. If you bought this lot from Gomark it would usually cost you just over £14 a time – so send a postcard to:

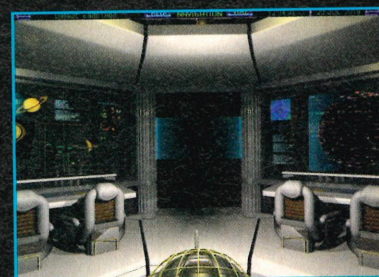
**FORMZ Freebies**  
Design Division  
Gomark Ltd  
10 Hurlingham  
Business Park  
Sullivan Road  
London  
SW6 3DU



Manuals,  
reference  
cards and  
magazines...  
for free!

# ESSENTIAL KIT FOR TRAVELLERS

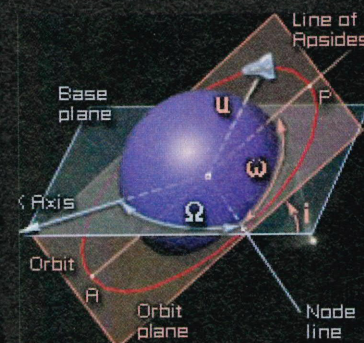
A futuristic extraordinary scientifically accurate interactive space mission simulator.



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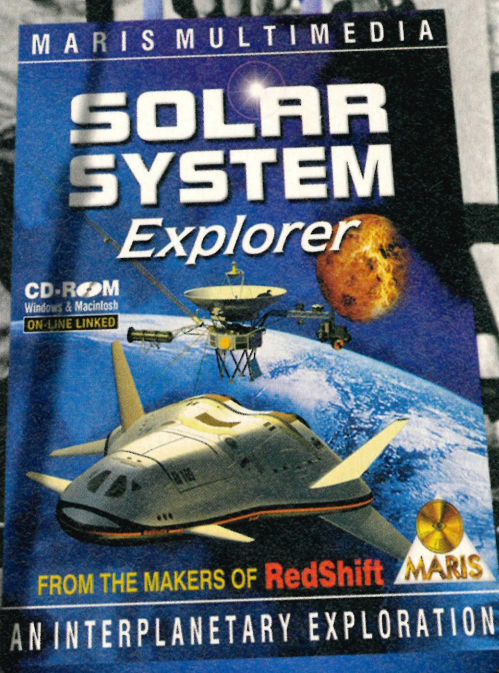


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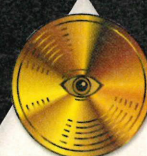
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# Everything you ever wanted to know about...



# LAUGHTER

**The digital media are in a laughable state of affairs as we plunge the depths for truly funny CD-ROMs and Web sites...**

**T**he world of the Net and CD-ROM can provide you with plenty of laughs. Unfortunately, in most cases, you'll be laughing for all the wrong reasons. We can produce an almost infinite list of fourth-rate CD-ROMs and Web sites that will leave your entire being judgering with wretched and uncontrollable guffaws.

Work your way down the list, however, and this outpouring of emotion changes in nature. Mirth turns to melancholy as you realise how impoverished most digital media are in terms of genuine humour. You're only laughing because the CD-ROMs or Web sites you're looking at are not humorous, but utter rubbish. And that's sad.

Oh, the ungovernable Internet. Full of funny people. Well, funny in their own minds. Type the words 'funny', 'humour' or 'comedy' into any search engine and the results, on the whole, will be lamentable. Home pages with names like Tony's Cage of Comedy, Big Mikey's Favourite Fat Funny Men or Laughing Larry's Hive of Humour. (The names have been changed to protect the ludicrous). Generally, the contents of such sites include a list of blonde jokes cut and pasted from an old Usenet collection, the script of some idiotic Abbot and Costello skit and a long list of links to other similarly-named humour sites.

You can, in fact, follow these links for eternity and not see a single funny joke. So, the message is to steer clear of the Tonys, Big Mikeys and Laughing Larrys. Unless, of course, you're in the mood for a bit of smirking. In that case, log on to Mirsky's Worst of the Web, the sole purpose of which is to sneer sarcastically at all the banalities and ill-conceived trivial offerings made available on the World Wide Web.

Or, have a look at the HumourNet site. HumourNet is an on-line mailing list of jokes, humorous stories and anecdotes, but the Web site contains archives of all the old mail-outs. You can trawl jokes on subjects such as phone sex, the military, Microsoft and weirdos in cyberspace. Best of all, though, is the Stupid-Criminal Hall of Shame, a collection of news stories about failed crimes around the world. Here's one just for you: "Germany: Oil of Ulay no longer turning the trick for her, a woman decided that she would bathe in

the milk of a camel. So she stole the camel from the local zoo and transported it back to her house – whereupon she realised that the camel's name was Otto."

If you subscribe, HumourNet will e-mail you new joke lists about two or three times a week. Likewise with LaughWEB, the site with a million smiles. This Web site offers a Laugh of the Day service, promising to send subscribers a joke once a day, but also includes a backlog of jokes. This time subjects include rednecks, political humour, the gross and disgusting, and animal humour. What's more, you can vote on how funny you think each joke is. Bad jokes are democratically relegated to the bottom of the lists so you never need read them. Anything rated eight or above will probably make you chuckle.

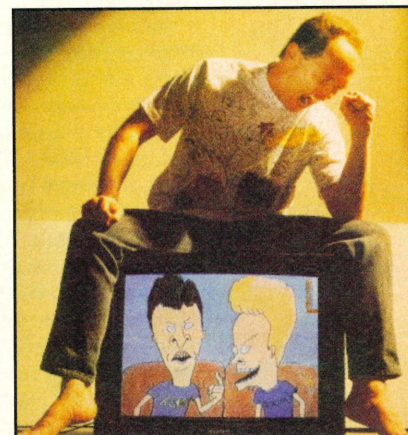
Also dishing out daily doses of laughter is Humourscope of the day. Just log on and get ludicrous advice to live by. It's quite surreal most of the time. 'Pisces – Seek out potato soup today. You will meet a somewhat short and hairy person in the course of your quest, who will play a surprisingly large role in your future activities'. Or, how about this: 'Leo – Excellent day to part your hair differently. Wild derring-do like that, who knows what might happen?'

Speaking of the stars, an increasing number of top comedians are finding the Web is a good way to commune with their fan base. A particularly good one is Lee & Herring's Fist of Fun site. They thought the BBC weren't getting new things on to their official site quickly enough so they started up their own. Rebels. This is where to go to read the script for their banned Christian Church Crawl Hobby sketch. Lee and Herring Tour dates are up there, plus fan paraphernalia like the lyrics to the Peter Dinkin Traffic Light Song.

Stephen Fry has a smallish site, so stop there if you want to say something to him and someone with plenty to say is Mark Thomas and his show, The Mark Thomas Comedy Product. He has a moderately funny Web site detailing his politically prickly pranks: "I left the telephone number for the Houses of Parliament at the end of the show," writes Thomas in his report on the third show in the series. "Channel 4 got a complaint from the ►



Lee and Herring, rebels that they are, weren't satisfied with the BBC's Fist of Fun site, so they put together their own.



Meet Mike Judge, the creator of Beavis and Butt-Head. He knows the name of the Roman God of Feces, which is always a bonus.



The idiot cops in the Dukes of Hazzard. Did you know that Rosco now hosts a public access fishing show in Florida? Well it's true.

## WEB SITES

BEAVIS AND BUTT-HEAD

<http://calvin.hsc.colorado.edu/home-page.html>

BBC PROGRAMMES

<http://www.bbc.co.uk/index/all.html>

CARRY ON...LINE

<http://www.geocities.com/Paris/4032/top10.html>

CORPSES FOR SALE

<http://distefano.com/index.htm>

EDINBURGH FRINGE

<http://www.web13.co.uk/fringe/main.html>

STEPHEN FRY

<http://www.gbn.net/~stephen/>

BILL HICKS

<http://www.netlink.co.uk/users/humornet/>

HUMORSCOPE

<http://www.teleport.com/~ronl/horo.html>

HUMOURNET

<http://www.gslink.net/~ufo/>

LAUGHWEB

[http://world.std.com/~joeshmoe/laugh-web/lweb\\_ns.html](http://world.std.com/~joeshmoe/laugh-web/lweb_ns.html)

LEE AND HERRING'S FIST OF FUN

<http://spodbox.linux.org.uk/fist/>

MELBOURNE FESTIVAL

<http://www.vicnet.net.au/~comfest/>

MIRSKY'S WORST OF THE WEB

<http://mirsky.com/wo w/>

MONTREAL JUST FOR LAUGHS

<http://www.rozon.ca/eng/index.htm>

PYTHONLINE

<http://www.python-line.com/>

REALAROMA

<http://www.realaroma.com/>

SEATTLE FESTIVAL

[http://www.uspan.com/u-laff/Sea\\_Comedy.html](http://www.uspan.com/u-laff/Sea_Comedy.html)

MARK THOMAS COMEDY PRODUCT

<http://alt.venus.co.uk/markthomas/>

UFO ABDUCTION INSURANCE

<http://www.gslink.net/~ufo/>

All the Web sites in this feature are linked to PC Review's Web site at <http://www.futurenet.co.uk>.

## CD-ROMS

GENE MACHINE

£34.99 Vic Tokai 0171 721 7607

MONTY PYTHON'S COMPLETE WASTE OF TIME

£39.99 7th Level 01932 355666

MONTY PYTHON AND THE QUEST FOR THE HOLY GRAIL

£39.99 7th Level 01932 355666

SAM &amp; MAX HIT THE ROAD

£9.99 Virgin White Label 0171 368 2255

DAY OF THE TENTACLE

£9.99 Virgin White Label 0171 368 2255

NEWSGROUPS

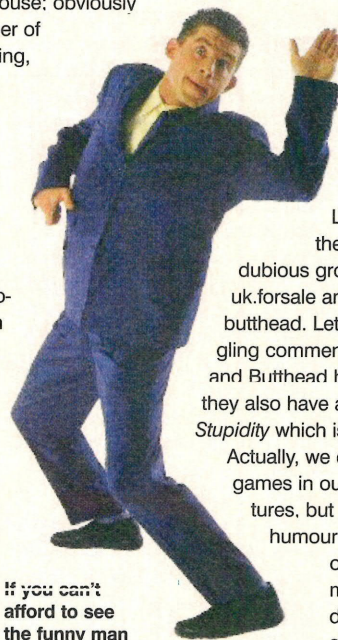
alt.humor.best-of-usenet  
alt.humour.puns  
rec.humour

On the other hand some sites will leave you looking about as happy as these fellas.

## “Just the names of certain newsgroups can also be a source of net humour.”

◀ Sargent at Arms at the House: obviously giving the telephone number of Parliament is a very bad thing, especially in a democracy where you might wish to phone your own MP and make them do something on your behalf”.

Topicality is a great strength of Internet humour. Almost as soon as events are reported, people start talking about them in the Usenet News groups, sometimes in a jokey way. The funniest messages that get posted to Usenet are usually then passed on to the alt.humor.best-of-usenet newsgroup, so it's worth stopping there every once in a while. A good proportion of the messages are moaning rubbish concerning, for instance, grammatical and spelling errors. But this one's worth it for the chance to read biting witty exchanges, as well as for the more bizarre postings. We found one postulating about a



If you can't afford to see the funny man for real then you could always take a look at his web site instead.

battle between a giant squid and a US nuclear submarine. Who'd kick butt, the poster to sci.military.naval wondered?

Just the names of certain newsgroups can also be a source of Net humour. Last time we trawled through them we encountered such dubious groups as alt.moose.rights, uk.forsale and alt.religion.beavis-n-butthead. Let the huh-huh-huh silly giggling commence, we say. Naturally, Beavis and Butt-head have Web sites aplenty and they also have a CD-ROM called *Virtual Stupidity* which is a bit of a hoot.

Actually, we don't normally include games in our 'All you need to know' features, but when you're talking about humour on CD-ROM, games are the only decent option. Yes, you might be able to pick up discs like *Comedy Central* and *Saturday Night Live*, but these are pretty much rock bottom on quality and the cheesy American stand-ups

aren't that great.

The two *Monty Python* discs, *Complete Waste of Time* and *Holy Grail*, both bring that



Carry On...Line documents those traditional British favourites with biographies, pictures, sound clips and so on.



New and original Monty Python material hits the Web at PythOnline. The site includes numerous new Terry Gilliam drawings.

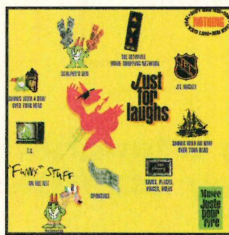
## Endless comedy

Live festivals are a big part of the comedy world these days, and every decent festival needs a decent Web site. Just like the Beach Boys sought endless summer by travelling around the world from beach to beach, we've surfed our way from festival to festival. Lets start in the West and work East...



## SEATTLE

This thingy symbolises our first stop, the Seattle Comedy Festival. Ah, that Pacific air. At this site you can pick up some strange Haiku and info on the Seattle comedy scene.



## MONTREAL

Just for Laughs is the name given to the Montreal Comedy Festival. It's reputationally one of the funniest shows on offer in the whole of North America.



## EDINBURGH

The Edinburgh Fringe. The Americans like it because they think its old

and quaint. Everyone else likes it because it's simply Britain's top live alternative comedy festival.



## MELBOURNE

Now we're heading down under to the Melbourne International Comedy Festival. Jo Brand appeared there this year. Even though the festival's over, it still has an active jokes site.

trademarked brand of Python hilarity to the gaming world, and come with our recommendations. Likewise, adventure games like the *Gene Machine*, *Sam & Max Hit the Road* and *Day of the Tentacle* contain some of the best game humour going.

PythOnline, with its satirical drawings and Spam Club – the most rapidly swelling organ in America – follows up on the two CD-ROM games to bring *Monty Python* to the Internet. Unlike the adoring sites by the thousands of wacky-brained Python fans out there, this one includes new content. But, of course, should you require all the goods and chattles of fandom, you can download John Cleese autographs, pictures of Michael Palin and new cartoons by Terry Gilliam. Wonderful.

Finally, all the spoof products being touted on the Net can certainly illicit a chuckle or two. Want some UFO Abduction Insurance? If you get snatched you get \$10 million. Have a look at RealAroma for real-time odour over the Internet, or perhaps you'd prefer a stinking object in your very bedroom (other than the laundry basket, that is) with a purchase from De Stefano's Corpses for Sale. "Each corpse is Hand Crafted and very durable in construction. Total attention to detail is seen in certain features such as fillings in the teeth, nostril cavities and fingernails that are embedded into the decaying skin." (GW)

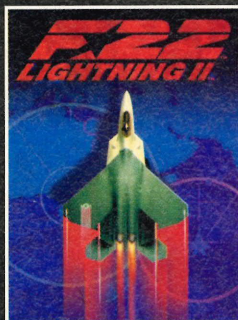


HumorNet UK, spelled the American way, is not to be confused with HumourNet, spelled the English way but based in the USA.

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**NOVA**  
  
**LOGIC™**

# SEGA-FEELING

**Think Sega. Now think PC. After years of developing purely for its own machines, Sega has finally made the leap into PC gaming.**



**Y**ou can forget the film *Independence Day* – Sega's plans for world domination are far bigger. If it has its way, the world of PC gaming will never be the same. Which is undoubtedly a very good thing indeed. For while PC gamers have often perceived Sega as the 'enemy', thanks to some friendly rivalry with the Saturn, its talent as a games developer can't be faulted. Remember, this is the games giant with the best coin-op R&D department in the world. With the world's best arcade originals to feed off, Sega's new PC division is set to change the face of computer gaming as we know it, moving the goalposts off the pitch and several miles right up the road.

Hitendra Naik has been with Sega for over four years, and is now European product manager for Sega's PC division. "We see a gap in the PC market," he says. "On one side there's the edutainment and kids games, then on the other

you have the adult games: simulation, strategy and so on. The likes of *Doom* and *Quake* fall somewhere in the middle. But there are very few PC games which offer that sort of instant gratification. Those are the kind of games which appeal to the mass market, the market that the PC is now attractive to. And that's what Sega has always appealed to."

It nevertheless seems rather strange that Sega has only now decided, for the very first time, to develop games on a system that's not its own. "We've held off until now for a number of reasons," explains Hitendra. "The standard for CPUs is now reasonably powerful, so we can finally recreate our arcade games properly, achieving similar speeds which we simply couldn't before. Plus, the advent of Windows 95 and improved 3D capabilities makes new things possible."

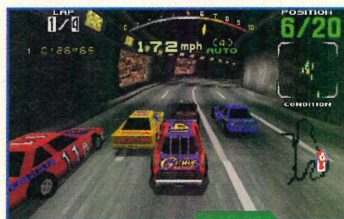
## Simple to operate

Sega is also keen for its games to be as simple to operate as possible. "The Sega brand has always been renowned for Plug and Play – our console systems have always been based around that concept – so we wanted to make sure consumers wouldn't have any problems with our PC games. The

other reason is, of course, that by next Christmas most families will have PCs in their homes. So obviously it made sense to enter such a market."

Presumably Windows 95 has removed a lot of Plug and Play headaches.

"Well, it's supposed to be Plug and Play, but it's more like pray. They're still



Panel-beating action in *Daytona* – one of the finest Sega racing games coming to a PC near you soon.

## SEGA through the AGES

Sega's successes have always been brought about by an unbeatable combination of quality games and good hardware to run them on. Here we take a quick look at the machines that made Sega.



### THE MASTER SYSTEM

Launched: mid-80s

Sega's entry into the home console market was the Master System, a cartridge-based machine with an 8-bit CPU. Low price and ease of use made it incredibly popular worldwide.



### THE MEGA DRIVE

Launched: 1988

It wasn't the improved graphics, better sound or 16-bit processor that made this a hit, but rather *Sonic the Hedgehog*, which led to the console's dominance in the UK at least.



### THE GAME GEAR

Launched: 1990

Always in the shadow of Nintendo's Game Boy and suffering from limited battery life – the Game Gear still impresses, as powerful as the Master System and boasting a colour display.

# SUPER, SONIC

ironing out so many things, but it's important from our point of view to use Windows 95, to recreate that console-style ease of use."

Of the titles due from Sega this year, *Three Dirty Dwarves* and *Sacred Pools* are actually sourced from the newly-formed Segasoft – a development team based in the US. Segasoft's output will, we are told, be a little different from the usual Sega fare. Jokey fantasy game references and scantily-clad females feature largely, and multi-player and Internet games are planned. The Segasoft titles will be augmented by conversions of Sega classics, Sonic CD and the 3D Saturn platformer *Bug* following recent examples *Ecco the Dolphin* and *Baku Baku Animal*.

It's the coin-op conversions which promise to set the PC games world on fire.

"We're keen to establish the area we're strongest at, which is the arcade side," admits Hitendra. *Virtua Fighter* has already upped the stakes in the beat-'em-up arena – proving that arcade-perfect gameplay and graphics are possible – with a decent Pentium chip. "We don't want to target low spec PCs and have disappointing performance," he states. "Even now we're having people say that we're limiting our market by designing for Pentiums running Windows 95. But we're looking at it from a long term point of view. We want to stipulate requirements which will ensure the game plays similarly to a console version. Had we written it to work on 486s, Sonic CD would've done two or three times better than it's going to do, but the speed just wouldn't have been there."

Sega is keen to make its PC implementations as close to the originals as

possible, because they realise that, unlike many software publishers, people place a lot of stock by the Sega name. Hitendra again: "They can relate to the the Sega brand, unlike a lot of other games where people notice the title rather than who's publishing it. We have to ensure that quality is high, otherwise people will associate a bad game with the whole brand. We have to be that little bit more careful."

The PC ports of Sega's coin-ops and Saturn titles are handled by Sega of Japan,

the 40-strong development team soon due to expand further as its already mammoth workload, and scale of ambition, increases. Although it's the coin-op conversions which are the most eagerly awaited, part of the reason for Sega's

entry into the PC market can be attributed to the Saturn conversions. "Panzer Dragoon cost three or four million pounds," reveals Hitendra, "so it makes sense to spread the cost across two platforms. We can work on big budget projects, knowing the risk is reduced because it's across two platforms".

## Taking advantage

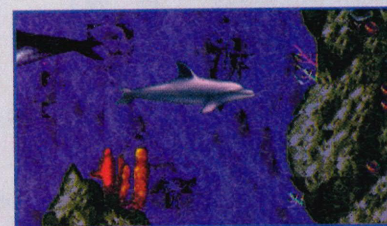
The other significant advantage that Naik sees about Sega's PC software springs from its experience with the architectural nature of consoles. "Programmers on the PC can be a little bit lazy, making the hardware do the work. They don't get the most out of the hardware at any one time. It's easy to simply move on to the next level of technology, whereas programmers on consoles tend to get more out of their machines." Such unswerving faith in the PC games market

## The first wave

Playing on a PC near you.

### Ecco the Dolphin

Mega-Drive-to-PC conversion of this blend of eco-friendly puzzles and cute animations provided a dry run for Sega.



### Tomcat Alley

Originally a showcase for Sega's Mega CD. Shoot-'em-up fun, using *Top Gun*-style cockpit footage and exterior shots.



### Comix Zone

Not much of a game. Younger users can fight their way through interactive, digital comic strips. Odd, but strangely intriguing.



### Virtua Fighter

The arcade legend on the PC is a joy, but a mega PC setup is required to get the best from it. The best beat-'em-up around.



### Baku Baku Animal

Sega's Tetris-variant *Columns* at the zoo. A classic blend of puzzling, with a cute presentation and neat animal animations.



In *Virtua Cop* you play these polygonal police men. Scheduled for PC release by Christmas.

**Arcade-perfect gameplay and graphics are possible – with a decent Pentium chip.**



## THE MEGA CD

Launched: 1992

This CD-ROM add-on for the Mega Drive offered both increased storage and improved 3D processing power. Despite a massive promotional budget, the peripheral never really caught on.



## THE 32X

Launched: 1994

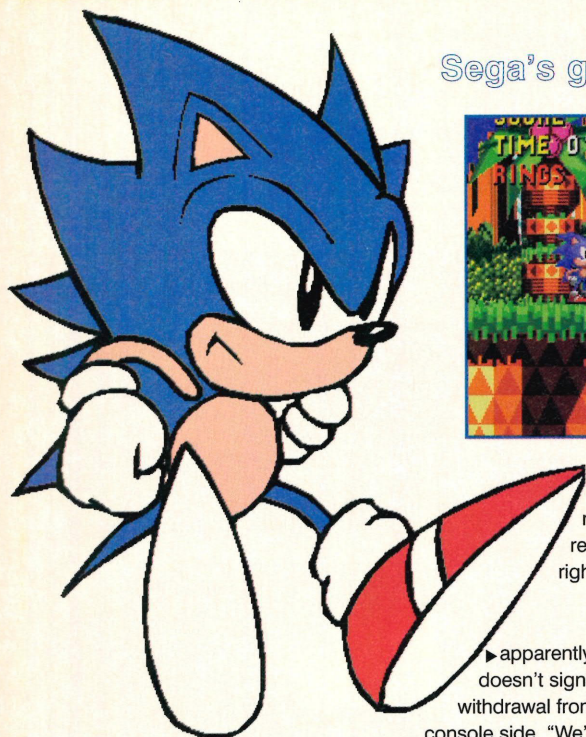
A terribly unsuccessful Mega Drive add-on, this was meant to be an intermediate stage between the Mega Drive and Saturn. Desirable only for a conversion of Sega's coin-op *Virtua Racing*.



## THE SATURN

Launched: 1995

A fully-fledged 32-bit system, the Saturn now holds half the next gen console market in the UK. Excellent coin-op conversions like *Daytona* and *Virtua Fighter 2* have helped the cause.



## Sega's gone soft Two games yet to hit the PC



### Sonic CD (August)

One of the last 16-bit conversions to reach the PC, the PC version promises to replicate the old MegaDrive implementation right down to the last pixel.



### Bug (September)

A slickly rendered 3D platformer, *Bug* sold stormingly on the Saturn. You play an insect-type beastie battling through dozens of levels on a mission to rescue your girlbug from a spider. (Saturn screen shot.)

► apparently doesn't signify a withdrawal from the console side. "We're

always going to be in the console market. It's moving even more towards being a family entertainment thing, rather than merging with the PC's market. We'll always make hardware consoles. It's a means to an end for us, to bring games from the arcades to the consumer. And nobody else is going to do that. So, as arcade hardware moves on, so we'll have to introduce new hardware in the home. It's all down to the content in

the end. And that's where Sega is out in front, with the arcade side."

### Standing room only

A move into PC hardware is also highly unlikely, particularly given Sega's keenness to work with other PC hardware manufacturers, such as Intel and Compaq, which will be releasing a Power VR-based machine bundled with a purpose-written Sega title next year.

And, of course, the PC market is already severely overcrowded with hardware manufacturers. It makes far more sense for

Sega's hardware division to focus on its own format. Sega's plans for PC domination shouldn't be underestimated. Even edutainment titles are mooted for next year. And while the Sega's Saturn machine now stands at the front of the queue when it comes to the best in original titles and coin-op conversions, even this is going to change. "You're going to see more and more simultaneous releases on both machines," says Hitendra. "By the end of next year that'll be fairly standard". By which time it's feasible that Sega could be the most successful PC games developer around. (MR)

### PRESS GANG

With their latest irreverent, stylish ads for *Virtua Fighter*, Sega is once again hitting headlines. The posters, which imply that the violence of the 3D beat-'em-up is a fine substitute for kicking the crap out of a skinhead, or punching a certain cigar-chomping football promoter have already provoked outrage amongst readers in the *Financial Times*, *The Daily Telegraph* and *The Sunday Times*. A nation's youth awaits corruption with baited breath.

### SEGA'S EXPANDING WEB

In addition to the US-based Sega internet site (<http://www.sega.com>) and its Japanese brother (<http://www.sega.co.jp>), the Sega empire has also launched a more Eurocentric on-line area. You can find it by pointing your Web browser at <http://www.sega-europe.com>, logically enough.

## Cash from chaos: Sega's arcade pedigree

Sega was founded way back in 1951, originally set up to import into Japan jukeboxes and the coin-operated games of the time. The name Sega is derived from the initial company name 'Service Games'. But by the late '50s, Sega diversified: it had begun to manufacture its own phenomenally successful products, eventually growing into the powerful coin-op division which still dominates arcades.

G-Loc and R360 – the rotating cabinet variant of this air combat game – perhaps best define Sega's first generation of modern arcade machines. Experimenting with 3D sprite and polygon-based game styles has continued since, with *Rad Mobile* and the now legendary *Virtua Racing* taking

Namco's old *Pole Position* concept and adding much more realism, both graphically and in terms of control.

The *Virtua* range has dominated the arcade scene in the last few years, the *Virtua Fighter* games introducing a new 3D edge to the beat-'em-up and *Virtua Cop* using the same technology for a simpler, more shootie offering. As Sega has updated its arcade machine motherboards, so the visuals have got closer to photo-realism – *Daytona* and *Sega Rally* use mind-boggling texture-mapping to embellish experiences somewhere between simulation and straight arcade racer. Recent releases such as *Virtua Fighter Kids*, *Alpine Racer*, *Sonic The Fighters*, *Manx TT* and *Virtua Cop 2* show Sega's fascination with all things fast and 3D is far from over, and its dominance shows no signs of waning.



You can check out Sega's machines past and present at Sega World in Bournemouth, or the Trocadero at Piccadilly Circus, London.

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Once of the most impressive features of Archimedean Dynasty is its vast underwater cities, made up of a real 3D buildings.



Blue Byte's Wolfgang Walk: "We believe that people playing Archimedean Dynasty must have a brain".

**We lock our sonar on the making of Blue Byte's new aquatic adventure. Don't pack your deodorant – "Humanity ends where the deep begins".**

## Two's COMPANY

Massive is a German development team fronted by Alexander Jorias and Ingol Frick. Its first outing on the PC was the conversion of *Settlers* from the Amiga. It's big by name rather than nature, with a core team of just four people.

Blue Byte Software was founded in 1988 by CEO Thomas Hertzler. It has been responsible for several prominent games over the last few years, including *Settlers*, *Settlers 2* and the *Battle Isle* series. Blue Byte is based in Mulheim, Germany, and has a submarine mock-up in its basement. No, really it does!



There's a variety of craft cruising the seas of Aqua. Even better, your opponents can have exactly the same torpedoes and guns as you.

**T**here's a mine-hunting mission in Archimedean Dynasty, the new 3D underwater adventure from Blue Byte. It sounds like a cinch: sail your sub to the waypoint, shoot the mines from a safe distance and free up your trade routes. But when you arrive, you discover that the mines are stabilised in a fearsome current. You grapple against the flow just to line up a shot, whilst the ocean pushes you straight towards the deadly mine field. In a single stroke of code, the frigid vacuum of space is rendered obsolete. "We took care of the



## Archimedean Dynasty: in progress

smallest details," says Blue Byte's Wolfgang Walk, from the German headquarters in Mulheim. "Archimedean Dynasty is a perfect simulation of an underwater world. Ingol Frick, the guy who designed the engine, actually studied underwater physics."

### We've really screwed up

The result is Aqua, a future earth created, as tends to happen, when everything goes wrong. This time we've really screwed up: the planet's surface is irradiated and uninhabitable, the ocean's blanketed with 50 metres of inorganic sludge, and the only real

protein comes from sea-worms cultivated beneath the Galapagos Islands. What can you expect from a society founded by deep-sea scientists, AWOL Navy Seals and anyone else who spent the four-minute countdown in the company of halibut?

Archimedean Dynasty presents Aqua through a mixture of glorious 3D landscapes and point-and-click interaction. "It's 80 per cent fighting and 20 per cent talking and equipping your sub," Wolfgang explains. You play Deadeye Flint, a mercenary who's visited most of the game's 60 locales: from the Palaces of the Clan Union to the infamous dens of the Anarchic Tornado Zone. Here you can pick up gossip, commissions and weaponry, as well the mission briefings that will eventually see you uniting Aqua in a battle against Bionic terrorists who, in what's surely a first for video game history, hail from Australia.

### Behaving badly

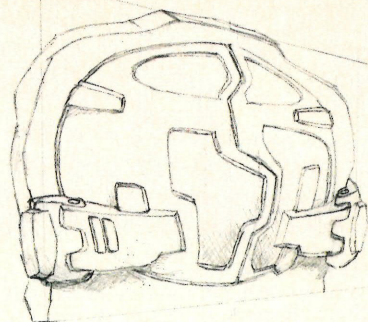
How you handle the city visits is as critical as the fighting that takes place outside. It's important to treat people properly, or you won't earn any money. But it's not always right to be too friendly.

"Different people have different characteristics," Wolfgang explains. Behaving badly in bars has drawbacks too – the characters you meet are quite capable of holding a grudge. "You might be in a pirate den, insulting some guy, and so he says he'll meet you

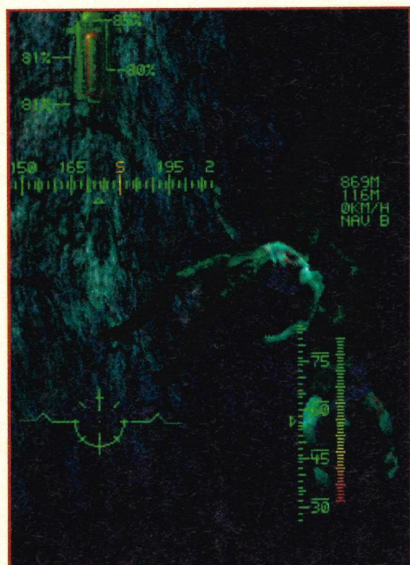


Like colourful fishes from the coral seas, some of the craft in Archimedean Dynasty sparkle in reds and golds. Your headup display provides info on the ship once you've locked on to it.

Archimedean Dynasty will be available from the end of October.



Designing a world that no one's ever seen before can be tricky. For instance, what would subaquatic garage doors look like?

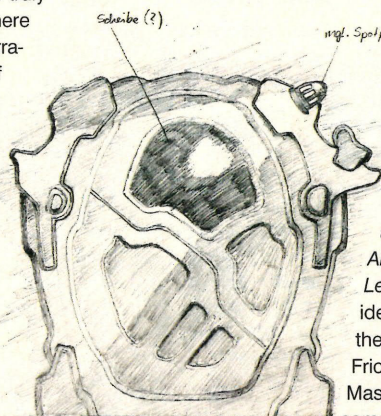


Burial at sea: "If the German's say we can't shoot dead bodies, we'll take them out".

in battle. And I swear he will." Bad-mouthing a sea-dog's mother ensures you get plenty of action, and what action. With hi-colour graphics sporting 64,000 colours and a resolution of 640 x 480 pixels, the landscape in *Archimedean Dynasty* flows by like good surf. Big freighters emerge endlessly from the gloom (with misting that makes much more sense underwater), while combat escorts buzz the foreground. And still the engine finds time to draw the seabed.

There are also some truly cinematic sequences where Flint, with his laconic narrative style, reveals himself as the spiritual cousin of *Blade Runner's* embittered replicant remover, Deckard. "Blade Runner was one influence, it's impossible to deny it," agrees Wolfgang. "But we have 60 cities, whereas they only have one!"

In fact, much of *Archimedean Dynasty* feels like a sci-fi



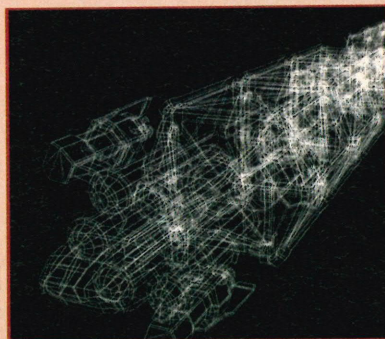
Schleife (?)

mgd. Spot position

unterer Teil öffnet in diese Richtung, aber in die Gegenrichtung

## From the drawing board to the PC

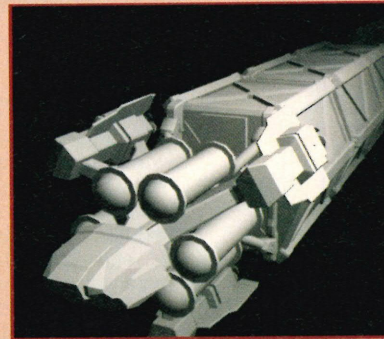
Several years of sporadic thought went into the genesis of *Archimedean Dynasty*. Extensive sketching was necessary to envisage the game's underwater cities. Unfortunately for us, all the notes are in German...



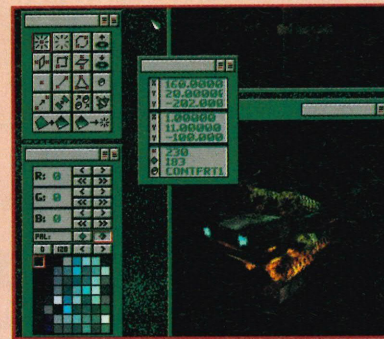
Although producing the wire frame is the first part of the modelling process, an artist will have already sketched the ship.



To finish create a realistic cruiser, texture-mapping is applied. This adds colour and patterns. Shadows are done in-game.



Next, flat textures are applied to the ship. This produces a solid, but fairly lifeless, 3D object. More work is needed.



All the objects in the game – such as the submarines, weapons and buildings – were modelled in 3D Studio.

## INSPIRATION

*Archimedean Dynasty* was inspired by three 1988 movies, the best of which was *The Abyss*, directed by James Cameron. A claustrophobic thriller involving the discovery of unearthly life-forms in the ocean depths, it also vividly portrayed the subsequent psychological breakdown of the film's main protagonists. Meanwhile, George Cosmatos' *Leviathan* centres on the discovery of unearthly life-forms in the ocean depths, and explores the subsequent psychological breakdown of the film's main protagonists. No one can quite remember what happens in *Deep Star Six*, but it's likely it's a cautionary tale about the discovery of six unearthly starfishes in the ocean's depths.

## CD REVIEW

Our exclusive demo of *Archimedean Dynasty*.

film. From the bubbling conversational sounds, to the dull hum of the ports and the sprawling, epic plot, the game's creator, Alexander Jorjas, has produced a believable, immersive fiction. "I'm glad you liked the atmosphere, we worked hard on that," says the annoyingly tall, blonde and talented Alexander. "The world is very dense – although there is a linear plot, we tried to mask it with the small missions. And a player will believe what he's told. We talk about the trading monopoly and

the various power blocs and he keeps it all in mind."

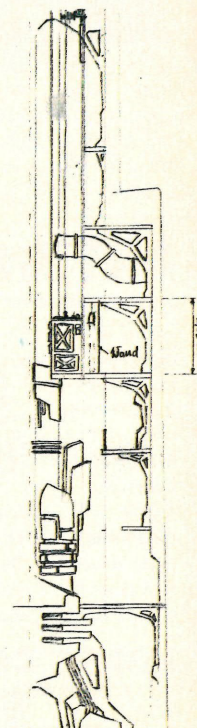
Alexander says the game's genesis came in 1988, with the simultaneous release of three sub-aquatic adventure films: *The Abyss*, *Deep Star Six* and *Leviathan*. He sat on his idea for five years, and in the meantime met Ingol Frick. Together they founded Massive, the development company that eventually created *Archimedean Dynasty* for Blue Byte. Work proper started

two years ago, in 1994, and the project remained a tight affair, with just themselves and two artists responsible for producing the bulk of the game.

Ingol cut his teeth developing games for the Amiga market, and this, says Alexander, is the secret of their graphics engine. "When you program on an Amiga, it has to be machine code, C and C++ aren't fast enough. So when we came to the PC, Assembler was the natural choice." He is tremendously proud of his partner's work, claiming up to 2,500 hi-colour polygons on-screen at once, at over 60 frames per second: "It would be a quantum leap for something like BRender".

## Lack of space

Blue Byte's Wolfgang Walk is equally confident. Estimating that *Archimedean Dynasty* cost around a million pounds, he's more than pleased the project's rounding off. "We've had to take a few things out, for space reasons, and we may not fit all the audio tracks. But it's complete. We won't run out of stories." And he laughs at the suggestion that Blue Byte might license the engine to competitors: "Let them develop their own. In a year or two we're going to have the monopoly". (OB)



Another sketch. Who says computers have killed off draughtmanship?

**"The landscape flows by like good surf, with misting that makes more sense underwater."**

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**TRADE ENQUIRIES WELCOME**



Once more unto the brink,  
with *Lord of the Realms 2*  
from Impressions

We go behind the lines with  
Impressions, as it polishes up  
its medieval war machine.



# HEIRS AND GRACES

With *Lords 2* almost out, it's impossible to resist asking David if there's any news on *Lords 3*. "It's certainly being talked about," he says. Will it follow the current vogue for three dimensions, *Lords 3D* perhaps? "3D is likely in some ways, I think especially for the terrain and the maps. My take is that for this type of game right now, sprites are much more effective than polygon characters. They're just not good looking enough yet to have three zillion of them running about."

# SOVEREIGN

## Lords of the Realm 2: in progress

First, a bit of history. With the release of *Lords of the Realm* in September 1994, for a while Impressions ruled the real-time-little-blokes-fighting roost. But then Blizzard souped-up *Warcraft* and, along with Westwood's *Command and Conquer*, produced the game that defined the genre. *Lords of the Realm* was left as, well, just another Princess Anastasia. The moral? When you're king, you have to fight just to keep a head, let alone hold your crown.

Back to today. Somewhere in Cambridge, Massachusetts, and Impressions is applying the final touches to *Lords of the Realm 2*. Traditionally, sequels are risky affairs, God's way of killing our hopes for the afterlife. No one remembers what happened in *The Godfather Part 2*, *Police Academy 2*

kept Steve Gutenberg and World War 2 didn't end all wars. But computer games differ from, say cinema, because just a few months can transform technology. The first thing we wanted to ask David Lester, managing director of Impressions and designer of both games, was if he saw *Lords 2* as the chance to do the things he'd wanted to do first time around.

"Yes and no," he says carefully. "*Lords 2* is very much a natural evolution of *Lords*, but the finished game's almost revolutionarily better." Sprites are bigger and bolder, the gameplay's been tightened up and there's a new graphical village-based interface. Yet the proven core of *Lords* remains the same.

"The game is set in 1268, with the premise that Edward I has died without an

heir," explains David. "This is where we leave historical accuracy behind." You're Lord of a county, with your own loyal peasantry and natural resources to manage. At this level the game is turn-based, with every party moving simultaneously. As a member of the aristocracy, you also get the perk of raising an army and conquering or eradicating your neighbours, which is where the real-time combat comes in.

Fighting is much improved. "*Warcraft 2* and *Command & Conquer* have created a new standard," David admits. "Impressions were probably the first people to do animated soldiers in combat, going way back to *Rourke's Drift* in 1990. Now we want to retake that crown." *Lords 2* features much better sprites and better unit control, castle sieging and six types of units in your armies. The sieges are the most eagerly awaited. "We wanted to do real time sieges with *Lords 1*," says David, "but the technology wasn't there. Speed is an issue - processor power gets used pretty quickly with all these guys running about".

Historically, a siege was a protracted affair, with defenders struggling daily to avoid flying cows while keeping the pitch boiling and looking out for 50 foot high wooden

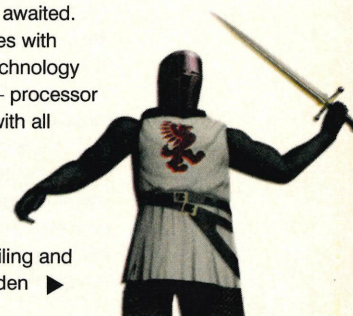
## NEXT MONTH

Don't miss our exclusive demo of *Lords of the Realm 2* on next month's CD Review.

## On the drawing board



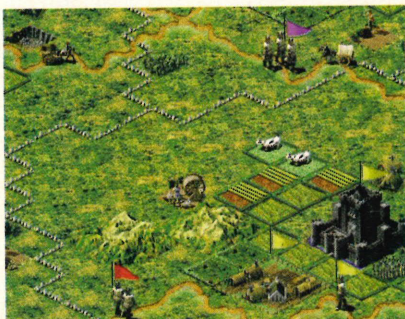
Pre-sketching isn't only useful when designing the pre-rendered animation sequences. Extensive illustration of the milieu keeps the games content uppermost in mind, even when the product itself is still just a set of equations.





#### RELEASE INFO

You can get your hands on *Lords of the Realm 2* in December, priced £42.99. You'll need at least a 486/ DX66, Windows 3.1 or later or DOS, 8Mb RAM, double speed CD drive and SVGA. Contact Sierra on 01734 303322 for more details.



It's hard to rise from your humble roots: "The resources you begin with will have a big effect on what you can do most cheaply".



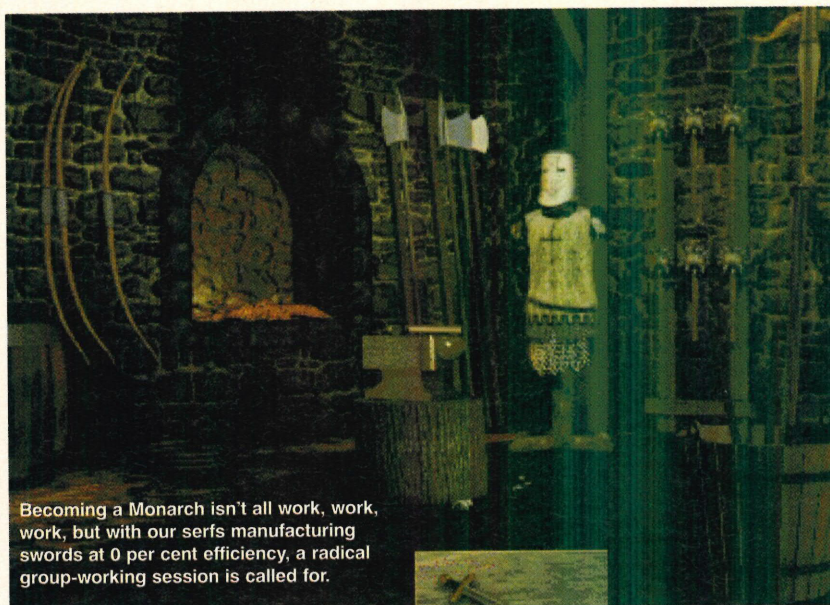
Impressions are proud of *Lords 2*'s diplomacy and deal-making engine.

► horses. The turn-based nature of *Lords 2* helps here – it might take up to a year to prepare your war engines, but the seasons pass quickly. A castle makes a lucrative target, so defence is paramount, which brings us full-circle to competent planning and resource management.

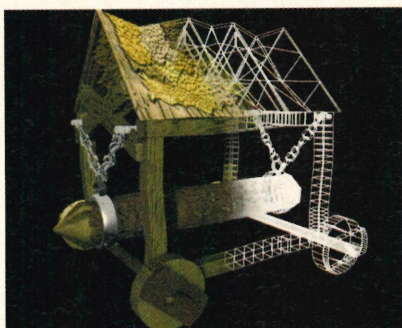
This interplay of strategy and action is perhaps unique to *Lords 2*. The obvious danger is that one side will be weakened relative to the other. "Yes, it's very dangerous to try to please two groups at once," admits David, countering that as the appeal of each genre widens, the mix offered by *Lords 2* should find a natural audience among fans of both. "Strategy games are breaking out of their mould."

Another appeal to a wider audience is the gameplay in *Lords 2*, which is based around empire building rather than, say, the more complicated exploration and research of *Civilisation 2*. "It offers a blend of several successful gaming types in a cool, rich setting," says David. "There's a lot of talk in the industry saying there's too much cloning is going on. I think it's a question of deciding when something is a clone and when it moves forward."

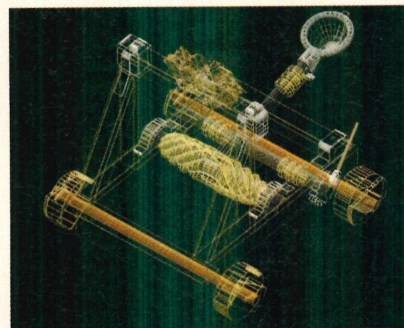
One trait David hopes *Lords 2* will share with its contemporaries is an addictive multiplayer experience. *Lords* even has smaller countries, so players can fight without marching through five counties of medieval marshland. However, lording it over your



Becoming a Monarch isn't all work, work, work, but with our serfs manufacturing swords at 0 per cent efficiency, a radical group-working session is called for.



The texture-mapping being added to a battering ram. Notice even the chaining is in 3D.



All the 3D objects in *Lords of the Realms 2* were designed in 3D Studio and 3D Max.

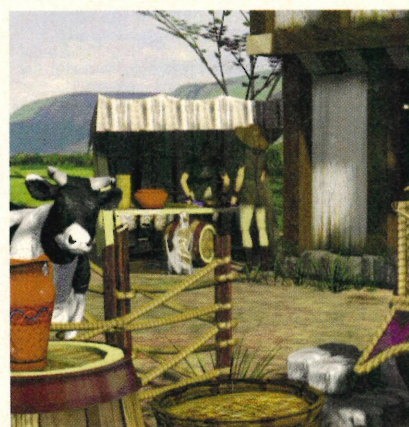
workmates is one thing – most PC users play alone. Too much effort directed towards network gaming risks distracting attention from the AI, the core of the single-player game. David concedes it's a danger. "The key is balance. It's easy to say that but harder to do. Many of the games we've mentioned are much more fun as a multiplayer game."

David's confident that *Lords 2* will stand up as a single-player game: "The AI is beating me 40 to 50 per cent of the time." Also, advancement in *Lords 2* is more skills-based. Your skills are tested by a wide variety of maps, resources, initial number of adjacent neighbours and so on. "In the scenario based games, the way the

computer typically has a chance of winning is by having increasingly higher odds at the start of the game. In *Lords 2* that simply doesn't apply."

Will *Lords 2* advance the command-and-consume genre, to retake its crown? It's possible. Much depends on the universal appeal the game hopes to latch on. "I confess when I was eight or nine I'd play with these little Essex models," David confides. "I had assaults over the bed, assaults over the bath and cowboys fighting units from World War 2. Part of the appeal of these little guys running around is that feeling power of everyone wanted at eight but couldn't have." Now, who's ever wanted to be king? (OB)

#### Bovine supermodels

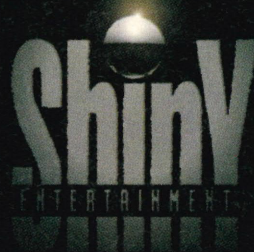


So, creating a wargame is all about sending little soldiers across the office carpet and then blowing them up with a well-aimed floppy disk, right? Well, not exactly, reveals David Lester: "First we build a core prototype at the kingdom level and do a lot of equations. And then we use *Excel* to balance equations, like the cattle birth and death rate, and make sure it all yields the right sort of output." Ah, the unsung hero, it's so easy to overlook the old cattle birth and death rate. "Yes," ponders David, "Many games designers must be saying that to you several times a week I should think. Those cattle death rates can be tricky". Ah, the glamour of games design.



# MAJOR DISPLAYS KINKINESS?

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# THE MAIL

**Do you know the difference between shovelware and software? The answer's hidden in our letters section...**

## CHEEKY MONKEYS!

I was peeved to say the least, when I bought your last issue promising a 100 page manual for *PhotoPlus 1* – only to find that there were only 45 pages dedicated to that software, leaving the other half of the book for something called *PagePlus 2*.

Giving away the manual was a neat idea, but why couldn't we have had 100 pages on *PhotoPlus 1* – that after all was one of the main reasons I bought the magazine.

Tony Wilson, Brighton

Hmm. To feel peeved is well within your rights – but there is a reason. The *PhotoPlus 1* manual only filled 45 pages – so the alternative was using all those dead trees to print the manual in bigger (maybe 14 point) text, with lots of blank pages for chapter starts and space for 'your notes'. But that wouldn't have been worth much to you now would it? Anyone who missed last month's *PagePlus 2* manual will be glad to know that the program on this month's *CD Review* features a comprehensive help file. Turn to page 100 for 20 tips for better DTP using *PagePlus 2*, and details of a top upgrade offer.

## SAYING NOTHING

I don't understand why you bother having a *CD Review* section in the

magazine. All the keys you need to play the games are already in your very worthy CD booklet and it too often ends up being just like the readme file. The fun is in playing game demos and trying software, not in reading about them.

Ian Parker, Bolton

We believe that the disc pages are an important part of the magazine – and that if we just throw a disc at you without documentation then it may as well be just the shovelware that other mags tend to bung out. But we're open to change – write and tell us if you think we should ditch those pages all together.

## LAST ON THE GRID

How come *PC Review* didn't test *F1GP2* and run the review, until the game was already in the shops? Loads of mags featured it way before you. What went wrong?

Ian Jacobs, Macclesfield

The game went through loads of changes in the last few months of its production and, with the uncertainty about release dates, we didn't want to rush the review out and then have a different game come out six months after our write-up. It's in the stores now – and truly brilliant. We think it

was worth waiting for. Next month, for all you armchair racers out there, we'll be running a feature about how to create the ultimate PC driving set up, complete with steering wheel and pedals. See you then.

## DON'T BELIEVE THE HYPE

Why have you made such a fuss about *Quake*, so far ahead of its release into the stores? You were acting like the game was already out, when you couldn't even buy it in the stores.

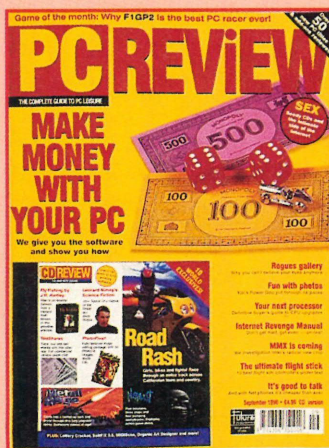
John Bishop, Dublin

Two reasons. Firstly this is the biggest game release of the year.

*Doom*, more than any other action game, firmly established the PCs credibility as a platform for true players, so the next big thing from Id was certain to be important. Secondly, don't forget that anyone who could get on-line was playing *Quake* about six months ago. The retail release is important – but getting there is half the fun. Believe the hype... buy the game!



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## Letter of the month

Why do most magazines hardly touch on music creation with the PC? With the collapse of the ST and Amiga markets the PC has, almost overnight become the number one platform for creating MIDI music. When you see interviews on TV from recording studios, you'll see more and more PCs in the background, beavering away.

Now with the drop in price of CD-ROM Writers you can have your own recording studio in your home and take the process right from first inspiration through to gold disc

master without breaking the bank. PC music making is here to stay.  
Ben Williams, Newcastle

Couldn't agree more. That's why, as our lead review this month, we pit the two leading hard disk recording packages against each other (see page 79). There is one problem with computer music making however. Almost every package requires a massive understanding of musical theory. It's not exactly Plug and Play when you've got to work your way through

music college just to get started! Next month our cover story is based on making PC music – but we assume no previous musical knowledge.

Using the full commercial version of Jammer Hit Sessions (still on sale for £49) we take you through several distinct genres of modern music and tell you everything you need to know to make a tune. We won't turn you into a Beethoven... but you'll end up at least as good as, say Malcolm McClaren!

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## THE SMALL PRINT

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2. Don't forget to put your name and address on the entry. Make sure you get it to us before 10 October, because that's when the next issue comes out. In the interests of fair play we will not accept any entries once we've printed the answer.
3. This competition is not open to employees of Star Micronics, Future Publishing or anyone who will use the printer to produce dodgy rants about achieving longevity through eating raw fish.
4. No multiple entries. Writing in a different colour pen won't fool us.
5. No correspondence will be entered into over the results of the competition. The judge's decision is final.
6. The answer will be printed in our next issue, and the lucky winners' names will be announced in the following issue.

**H**owever much your PC improves your life, however wired, lucratively-hired or gaming-to-midnight-tired you are, without a printer it's like having fun in a dream. You need to imprint to impress. We realise this at *PC Review*, so we've conspired this month with the generous people at Star Micronics to bring you not one, but three top printers. Bung your Biros in the nearest recycling bin and enter the world of DTP.

The first printer on offer is the LC-240, an affordable 24-pin colour dot matrix printer. Moving upmarket, you might get your mitts on the SJ-144, a thermal transfer printer designed to offer laser quality printing. It can print both monochrome and colour pages – an ideal all-purpose model. But if you need the highest quality results, the WinType 800C has been designed to offer professional quality smudge-proof presentations in both monochrome and colour.

### The question

What boffin of yore invented the world's first printing machine to utilise movable type?

## The printable facts

The LC-240 is an affordable 24-pin dot matrix printer which offers colour printing and 64cps letter quality output. The SJ-144 is a compact all-purpose printer, which offers both monochrome and full-colour printing. It costs approximately 2 to 3 pence per monochrome page, or 50 to 75 pence for a full-colour page, and can print on standard paper, labels or OHP films. Windows compatible, the SJ-144 includes eight resident fonts, and comes with an additional 15 TrueType fonts.

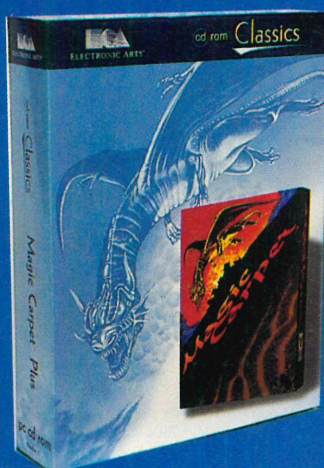
The WinType 800C is a high quality thermal transfer printer which aims to surpass inkjet printers in clarity, density and durability. It has low running costs (40 pence for a full colour page, including paper) and a resolution of 300dpi. It is Windows compatible and comes supplied with 35 scaleable TrueType fonts.

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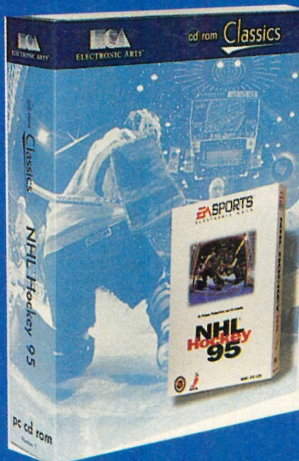
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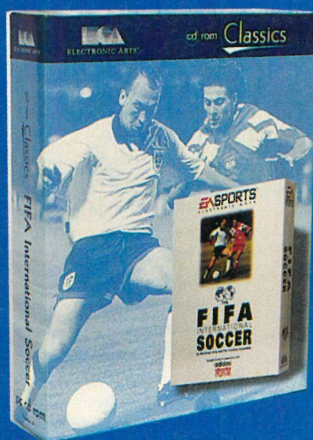
Magic Carpet is widely acknowledged to be one of the best PC action games ever. It's remarkably absorbing and you'll love it.



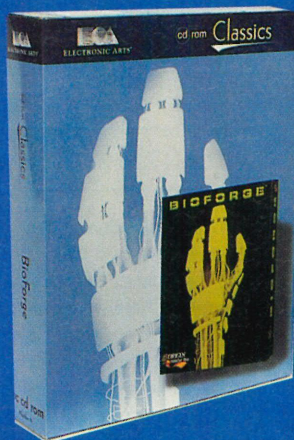
Hard hitting action awaits sports fans with NHL Hockey 95. Will you be winding up for a slap shot or puck handling your way on to victory?



Theme Park remains one of the best business sims ever, and it's incredibly fun too. Build log flumes, roller coasters and racing car tracks. It's all in a day's work.



A footie classic had to make the list. FIFA International Soccer was one of the first games to introduce a 3D perspective to PC footballing.



An intriguing graphical adventure, BioForge takes you into a truly cyber future. You play a man with metal arms and legs, and lots of evil enemies.



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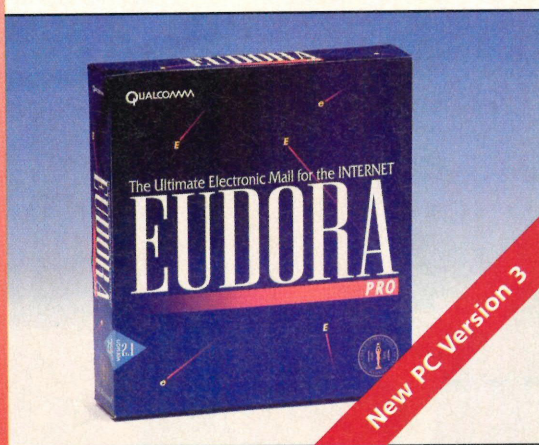
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Ogre and all  
his friends.

action



PLAYER

## PLAYER



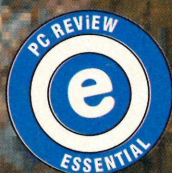
Here at last. Here at last. Thank God almighty, *Quake*'s here at last. But that's not all we've got on offer in this month's Player section. We've got a real treat for sports fans with the first review of the best American football game ever made for the PC - *Madden 97* (see page 40). Other highlights include a long overdue return from Bullfrog, with the wonderful *Syndicate Wars* (turn to page 50), and the compelling game based on the best-selling short story by Harlan Ellison, *I Have No Mouth and I Must Scream* (reviewed on page 44).

Next month we've lined up an exclusive, playable demo, interview with the designers and review of *Privateer: The Darkening*. The recent, and most promising game yet set in the *Wing Commander* Universe. See you then.

Mark Ramshaw

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Are you ready for *Quake*? Well, are you? Are you pumped up? I can't hear you. **ARE YOU PUMPED UP?**

# QUAKE

This is already a hugely controversial game. For five months now, anyone with a network has been blasting and fighting their way through multi-player games. They've universally loved it. But there's been a rumour flying round. A dirty, pernicious, thoughtless and cruel rumour. Do you know what they've been saying? That single-player *Quake* is just OK. As opposed to wonderfully, heart-stoppingly brilliant. Well, it's time to squash those rumours. *Quake* is the best PC game ever made. A perfectly-sculpted, grotesque, visceral, nail-biting extravaganza from start to finish, single or multiplayer. That's the conclusion finished with - now to explain why!

There's so much about *Quake* that is just so damned good. Id never pretended

that its new game was going to be anything more than a first-person perspective shoot-'em-up. That, after all, is what the Texas-based developer does best - it's been in the 3D business since even before its first major hit *Wolfenstein* (anyone remember *Hover Tanks 3D?*). It's what they do better than anyone in the world and that's the only way *Quake* should be reviewed... not on the strength of storyline or adventure, but ultraviolence.

### Treat with contempt

Id treats storylines with contempt. The paper-thin plot that shipped in the readme file for the shareware release (about some guy called *Quake* reeking carnage) now looks even more tenuous than ever. This has more

than a little to do with the genesis of *Quake*. Originally intended as a medieval gods game, early versions focused more on melee weaponry - swords, maces, axes and the like. Long-range projectiles were included, but these guns, nicknamed boom sticks, were the exception rather than the norm. Over halfway through development, the decision was taken to instead turn *Quake* into a more thoroughly modern *Doom*-esque game, complete with space age shooters and properly tooled-up bad guys. This step is made possible by some type of time travelling scenario. All you really need to know is that there's some evil stuff going on... and it's down to you to sort it out.

With the dim-witted grunt soldiers and visceral, organic alien selection, you could



Pah! You think you can destroy a Death Knight with your puny little nailgun? Well, actually you can. The only problem is that it takes so many rounds he'll probably have stabbed you to death by the time he expires in a bloody heap.

almost be playing a sequel to *Doom*. But it's clear that the fantasy side of *Quake* wasn't ditched entirely, as there's a selection of knights eager to dispatch you with cold steel, and for every futuristic complex to fight your way through, there's a castle or dungeon to explore.

*Doom* always introduced new bad guys excellently, and *Quake* keeps the flag flying admirably. Take, for example, the first time you bump into a Rotfish.

You've been chortling along quite happily swimming underwater, then suddenly you hear a nibbling – you look down to see yourself surrounded by piranha-like creations. Easy to pick off one at a time, but a nightmare when they attack in packs. And what about the first time you spot one of the spider-like Vores. Jumping across a series of platforms

floating on lava, you hear a deep scream – it's flinging homing bombs in your direction. You're dog meat, pal!

The best thing of all about the *Quake* baddies is that they're smart. The Fiend doesn't take the shortest, most obvious route around an obstruction and walk into your shotgun. It sneaks round the other way. The Ogre dodges and flees if you fire missiles, and he can't retaliate with his short range

grenades and chainsaw. The Enforcer leaps off ledges if he can't hit you with his laser beam.

The kit on offer to dispatch the bad guys will disappoint if you've played the shareware version – there's only one extra gun to fool with (but by the end of this review you'll know why that's not a problem). You start with a weedy shotgun, but graduate through to the ranks of chain nailguns and grenade launchers. The extra



Close up the texture maps on the enemies pixellate – but only a bit!



Look up! Here comes a Fiend. It's almost certainly curtains for this player. If you've just got a shotgun, keep this beast at a distance.



The Zombie 'gives you a piece of his mind'. Though not in the way you'd expect – he pulls off chunks of his head and throws them.

weapon is the thunderbolt, a gothic-looking lightning gun that buzzes and sizzles – powerful, but packing nothing like the whack of the rocket launcher.

### So damned compelling

It was always the level design that made the *Doom* games so damned compelling, and the boys at Id have come up trumps yet again. Every map has a distinct feel to it, with various architectures and gimmicks along the way. For example, Wind Tunnels is like no other level in the game, with mad pipes to suck you in and throw you around. It's rare that you'll be frustrated by the level designs, and we only had a couple of minor grievances. Firstly, there's the feeling that at times you're stuck for what to do next. You've searched every nook and cranny of opened area, and find yourself completely stranded. There's always a way out, though, and while the level design might not always intuitively lead you along a particular route,

## Who's who...



**Grunt**  
Stupid, slow and weedy. These guys should really just be seen as portable ammo boxes!



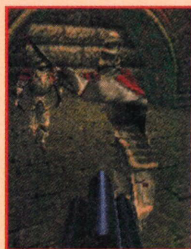
**Zombie**  
As Id famously says – "Thou canst kill what does not live, but thou canst reduce it to chunky kibbles"



**The Rottweiler**  
Rabies-crazed, steroid-pumped woofer. Drops with a couple of shot gun blasts but good for making you jump.



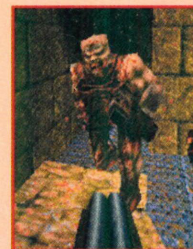
**Scrag**  
Also known as the wizard, these flying monsters fire what looks disturbingly like phlegm in your direction. Lovely.



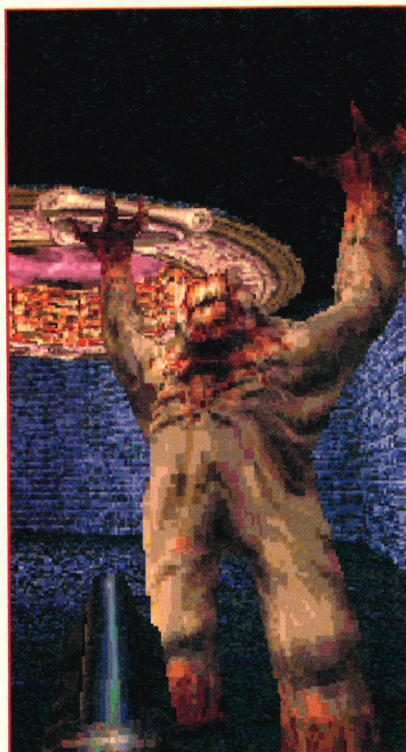
**Knight**  
A grunt waving a sword... and yet he manages to move around pretty damn quick, considering all that armour.



**Fiend**  
In many ways this charming chap is just a buzzsaw on trotters. Able to leap long buildings in a single bound.



**Ogre**  
Keep your distance and he lobs grenades. Get too close and he swings his chainsaw. Kill him quick!



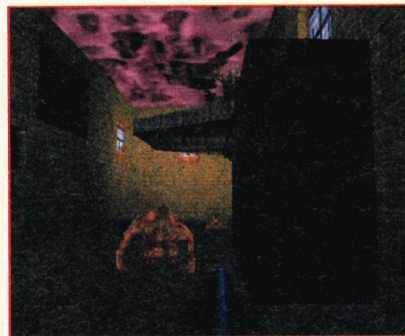
Pleased to meet you. When the Shambler waves his arms in the air for a big shout, he's about to bash your head in. That's just the price you have to pay for non-linear entertainment. The other fiddly vexation is the fact that you spend far too much time running around in shallow water, around and underneath the levels where the true action actually is.

The maps, with their intricately textured floors, walls and ceilings, all give an impression of realistic space, which now comes to you in true 3D. To explain, while *Doom* felt like a 3D game, it was in fact as flat as *Pac-Man*, because the map only ever had ground at one level at any one point.

That's why you never walked under or over bridges, and all the stairways were solid. And that's also why it never much mattered



What a senseless waste of a Grunt's life. Note the way that the corpses land according to weapon and direction of blast.



The outside levels are much better handled than in *Doom*. One of the benefits of having a truly three-dimensional map.

in *Doom* that you couldn't look up and down. And why in *Hexen* when your neck was granted that magic flexibility it felt like an afterthought.

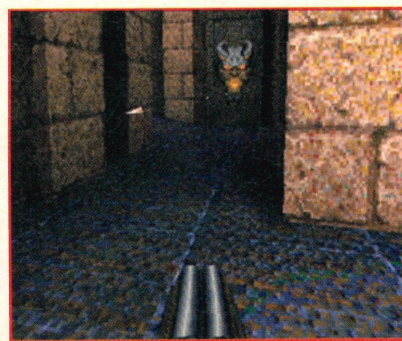
In *Quake* you absolutely, positively need to be aware of your surroundings all the

time. You have rivers to swim down into and explore, vast chasms to stare into, grates you can stroll over, snipers all over the place – *Quake* is a three dimensional wonderland! Looking around is easy using the mouse. Depending on your control setup, you can squeeze a mouse button in and then use

the ball to angle your head and your weapon – push forward to look down, pull back to look up and so on. The incredibly neat thing



The 20-foot-high Shambler sends out deadly blasts of lightning.



Watch out for traps like this – an innocent-looking wall hanging that spits nails from its mouth should you stray near.



You can't smash the stained glass windows in *Quake*. But you could in Raven's game *Hexen* which used the old *Doom* engine. Bah! about this control innovation is that it's almost instantly transparent.

It'd be rude not to mention the presentation which to many is meant to be the 'big story' about *Quake* after all. 3D guru John Carmack has come up trumps with a devastating 3D graphics engine – whatever your processor, whatever your video card, there's a resolution setting to make the most of it. Backgrounds are detailed and the in-game enemies made up of textured polygonal models, rather than the sprites in *Doom*. This does have repercussions for the game-play, though. Enemies tend to attack in twos and threes, rather than human sea hordes, as that's what the polygonal engine handles best. *Doom*'s tacky music has been replaced by moody, atmospheric Red Book Audio tracks by Nine Inch Nails. The background

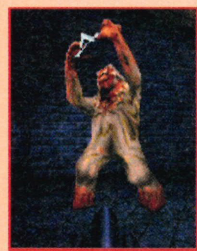
## CD REVIEW

*Quake Collection Part One*  
Blimey, do we have a treat for you! We feature the latest version of shareware *Quake* (they're up to 1.1) and a mountain of *Quake* patches, add-ons and levels.

## THE SECRET AREAS

Turn to page 60 for the first half of our guide to *Quake*'s secret areas.

**And the best thing of all about the Quake baddies is that they're smart. The Fiend won't always take the shortest, most obvious route around an obstruction and walk into your shotgun.**



**Shambler**  
20-foot-tall monster with claws and the power to summon lightning. We suggest using the chain nailgun.



**Enforcer**  
Rock-hard-looking geezer carrying a laser cannon – that'll roast flesh and sizzle just about anything else.



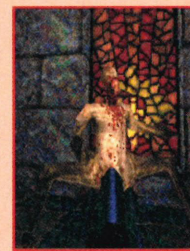
**Death Knight**  
Souped up medieval knight bloke, wielding a sword and fully able to fling a shower of laser bolts at you.



**The RotFish**  
These swines have a nasty habit of pouncing just as you're about to drown. Nails will do for them.



**Spawn**  
AKA the tarbaby, these shape-shifting, flip-flapping baddies explode when shot – taking you with them.



**Vore**  
AKA the Shalrath, these scary tripod beasts can throw homing bombs that chase you around corners.



**The final boss**  
We're not going to ruin the final surprise... you'll have to wait till next month's *Quake* solution.

## THE QUAKE COLLECTION

### ALIASES

These are programs that add functionality to the Quake engine.

**qmore:** more gore when creatures explode

**qcheat:**

new **IMPULSE** cheats

**proxmin 1:** turns the grenade launcher into a proximity mine dispatch

**multi 11:** enables you to give special textures to your deathmatch player

**morewpns:** Replaces the Super Nailgun with the Chain Blaster, and replaces Grenade Launcher/Rocket launcher with a flechette launcher

**homing:** gives you homing missiles instead of rockets

**gtimerf:** supposedly enables you to change grenade timing (We had trouble doing it)

**gibgun:** lets you fight zombie-style, by throwing bits of your body at enemies

**gibbin3:** makes monsters solid so they pile up. Also, loads more gibbs on destruction

**flabomb1:** new flash bomb weapon. (But we couldn't find one...)

**exflsh:** you fire pirhanas instead of rockets

**drunkm3:** makes your rocket launcher fire three missiles in a semi random path

**axe\_of\_c:** Axe of persuasion - charms monsters so you can raise your own armies...

### ALIASES

These are aliases you add to your config file... (you can write these yourself). They soup you up, but don't actually improve your functionality...

**zscope:** selectable zoom lens

**look:** springs your mouse back when you release look button

**crosshair:** gives you a cross-site for your gun

**autofire:** turns autofire on and off (We didn't get a chance to test this)

**qcfg19:** loads of stuff, including: Circle Strafe, Float, Crosshair, Zoom modes w/crosshair, Quick Rocket, Quick Grenade, Gravity, Gamma Correction, Xray

### LEVELS

All these are new levels (they're mainly death match maps)

tower  
shaft  
q-palace  
night  
jiado  
castle

noises (also created by the band) are also brilliantly recorded and integrate seamlessly into the action - you'll be wanting to connect this one up to your hi fi!

We haven't yet mentioned how outrageously expandable the whole thing is. The open nature of the games design has already

spawned dozens of new levels and QuakeC patches - amateur programmers all over the world are changing everything about the way Quake works, creating new weapons, bad guys and even artificial



**The Ogre:** Keep away and he throws grenades. Get too close and you'll spot his chainsaw.

intelligences. Quake is a starting point for the next five years of 3D games. With a decent supply of patches, upgrades and weapons you'll never need another action game. On this month's CD Review we bring you part one of our Quake Collection - check out the box to the left for details.

Quake is a truly fantastic game. And anyone who doesn't think so should come by the PC Review office for a few games of death match. We may not change their minds - but we'll sure as hell punish them for being non-believers. (JB)



Eat lightning. The Shambler vents his electrical fury.

### DEVELOPER

Id

### PUBLISHER

GT Interactive

### CONTACT

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486DX4/100, 8Mb, CD-ROM drive, hard drive (75Mb)

### PC REVIEW VERDICT

Welcome to year zero.

10

## This is the end...

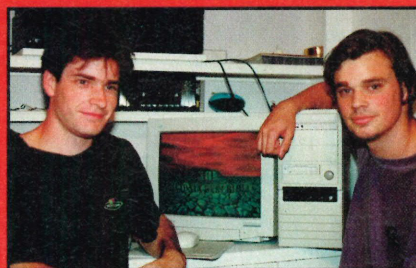
Well, it hardly seems fair to review *Final Doom* against Quake. The very last instalment in the epic *Doom* saga uses the high-res *Doom* Windows 95 engine and offers a whole new set of maps. PC Review instead spoke to Dario and Milo Casali - two brothers based in the UK who were picked from thousands of *Doom* level designers to create the game.

### How did Id pick you to develop Final Doom?

We are both on TeamTNT, a gathering of about 30 of the most prolific *Doom* programmers - or so we like to think. The idea was to each design a level and come up with a world class 32-level set. Milo and I submitted about nine or ten between us, and TeamTNT didn't want Evilution, as it became known, to be

'over-run' with Casali levels, so they only included four. We were also hindered by TeamTNT rules and guidelines, so we decided that we'd direct our efforts into our own creation, using our own rules (none) and guidelines (make it the best ever).....

So we made a 12-level, self-contained episode. The final level in Plutonia was level 12 in this episode. We were confident that it met TNT standard, so I sent Plutonia to American McGee. He passed it on to Romero and the team, and they liked it. They wanted to use it initially to replace some Evilution levels, but we asked them not to break Plutonia up and that we'd go the full-length and make 32. All the levels were ready by Christmas '95, four and a half months after the first one was made.



Dario and Milo - the designers of Final Doom

### What was your reaction when you found out it was to be you designing Final Doom?

I was totally dumbfounded. I can remember the feeling I got when I realised the ultimate homage had been paid to our level making. It was the feeling of wanting to get on and let the world know about Plutonia. I also went straight to the nearest car dealer.

### What tools did you use to develop the levels for Final Doom?

We have both always favoured the most unuser-friendly editors, as they usually enable you to control everything about the map making. Thus we started with DEU when it first came out for *Doom 1*, then we went on to DETH for Plutonia. We also use Wintex and Deutex to put the wad together (graphics, textures, levels and

demos). Apart from that, we use rendering packages to create wall textures and paint packages for other artwork.

### What plans do you have for Quake level design?

We've already got things sorted and are waiting for the editors to come out. We both went mad and bought Pentium Pros and they run Quake like a dream. I hear building Quake levels takes an awfully long time. We have the storyline and over 200 textures ready to stick in, we also have a new set of weapons ready.

Quake is like a whole new 3D lump of clay for you to fashion what you will. With *Doom* you could beat it into ledges and platforms, now you can throw it to your mind and it will come out a whole new world to explore.

## Five tips for designing better Doom or Quake levels care of the Casali brothers

**1** Don't abuse textures - use them tastefully and don't have too many diverse colours in one level. Try to have a base of four or five textures used differently throughout the level. By all means you have your computer areas and such, but try to put different textures in different levels. Look at ancient architecture and places like the colosseum in Rome, it has a certain look about it that makes it very atmospheric.

**2** Position monsters cleverly - by placing a monster according to the way it attacks, you can have a far more effective trap than having a 'hoard', and therefore demand more respect from the player.

**3** Lighting is important - have a light source and make it look as though light is coming from it, use shadows and dark areas well. Having a level slightly dark makes it more sinister, and usually makes the textures look better.

**4** Make the level interesting - this is usually done by having something in the level that's unique to that level alone, such as architecture or a neat trap. Or simply a dazzling puzzle or sequence of events that makes the player think 'cool'. Custom textures always make a level unique. That doesn't mean pink, fluorescent patterns that have been stolen from your nearest texture library, it means making the textures in mind of

what they're supposed to be. If you're thinking of designing a castle, go get some cool castle wall textures, then your castle will be far more convincing, rather than a *Doom*-esque construction with the same old textures.

**4** Playability is naturally very important. Have a go at playing your level and if it doesn't manage to bring a smile to your face, ditch it. In two months time, the Casali brothers will be joining PC Review as guest writers to bring you a two-part feature on designing your own Quake levels. miss it at your peril! In the meantime, you can purchase *Final Doom* from GT Interactive for around £29.99.

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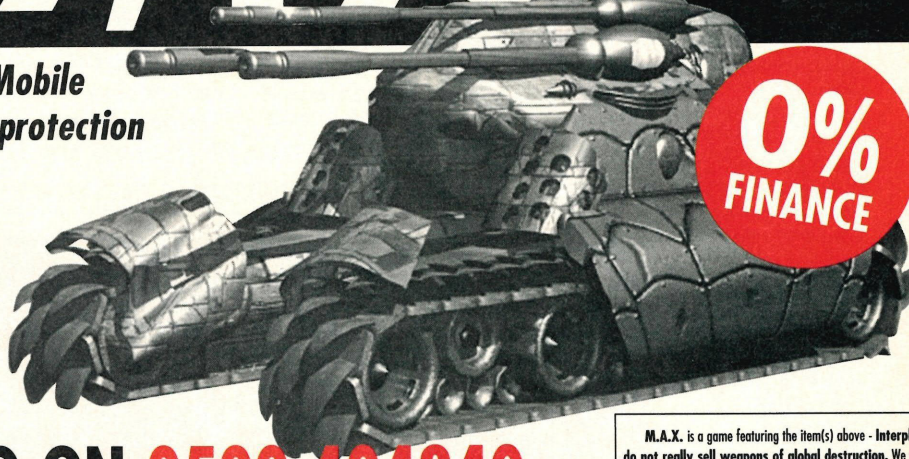
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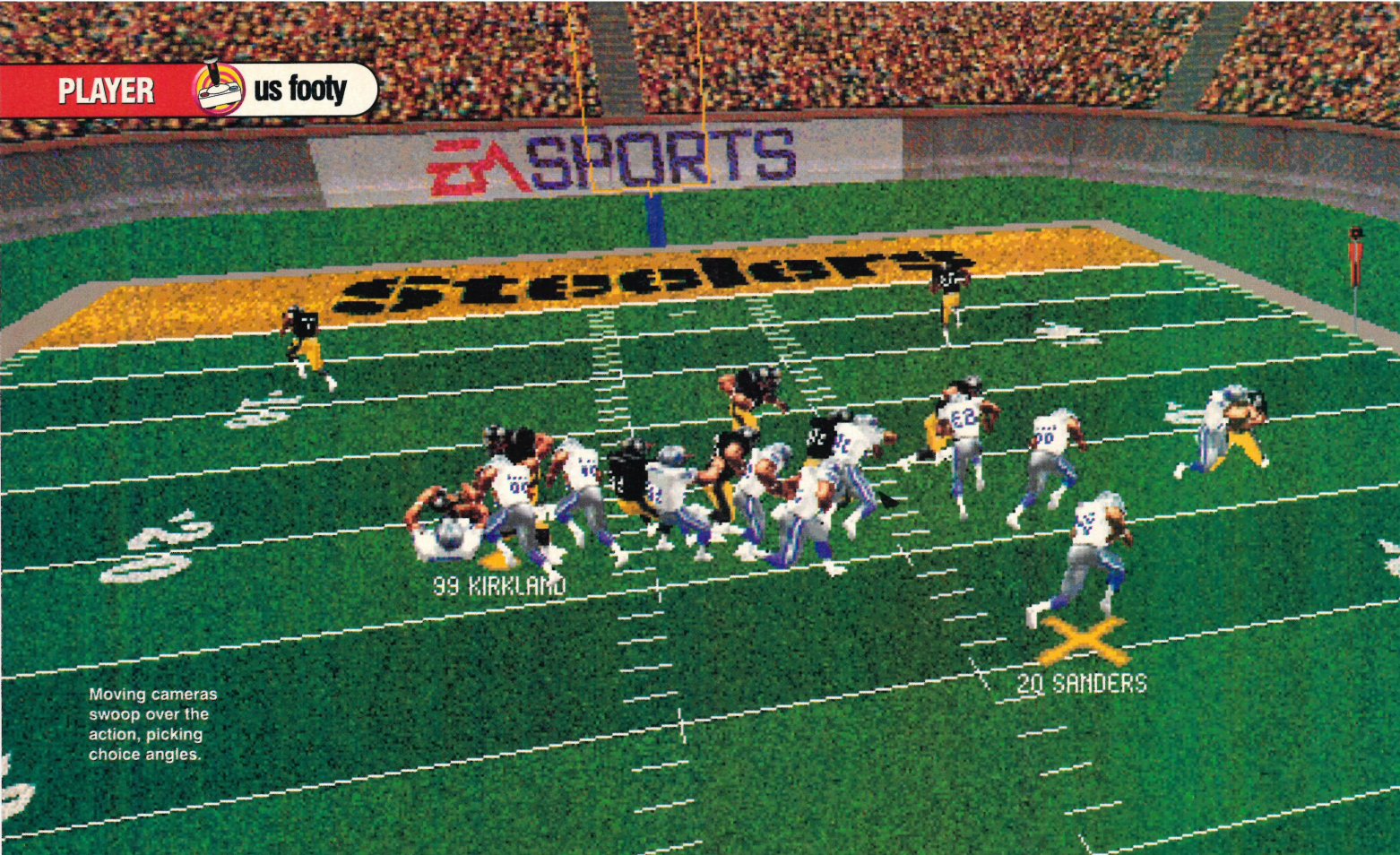
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Moving cameras swoop over the action, picking choice angles.

## MAD FOR IT!

It's a sign of John Madden Football's lasting quality that it has appeared on every major format of the last few years at one time or another. The Mega Drive's seen the most Maddens, but it's also appeared on the Super Nintendo, the ill-fated 3DO, the late-lamented Amiga, the PlayStation and even the Game Boy.

The 3DO version was the first to boast a slick front end, with FMV of Johnnie Boy and some commentary – albeit repetitive – from the man himself. The first versions on both SNES and Amiga were disappointing but, strangely, the Game Boy version – although adopting a top-down view – played surprisingly well. And, of course, the all-new PC version is the latest peak in JM's distinguished videogames career.

# MADDEN '97

**Will the PC version of Madden be as good as its console brethren? Do the French eat garlic?**

Ten years is a long time. Ten years ago, every self-respecting young man sported a Pepe key ring, fancied Glynis Barber out of *Dempsey & Makepeace* and had just bought his first compact disc (Dire Straits' *Brothers In Arms*, no doubt). Chances are he wouldn't have had a PC. Or rather the clunky, XT-powered, CGA nightmare that passed for a PC at the time. So, chances are he would have missed the debut of *John Madden Football*. Well, he wasn't missing much.

It took the first Mega Drive incarnation of the game, which appeared in 1991, to really

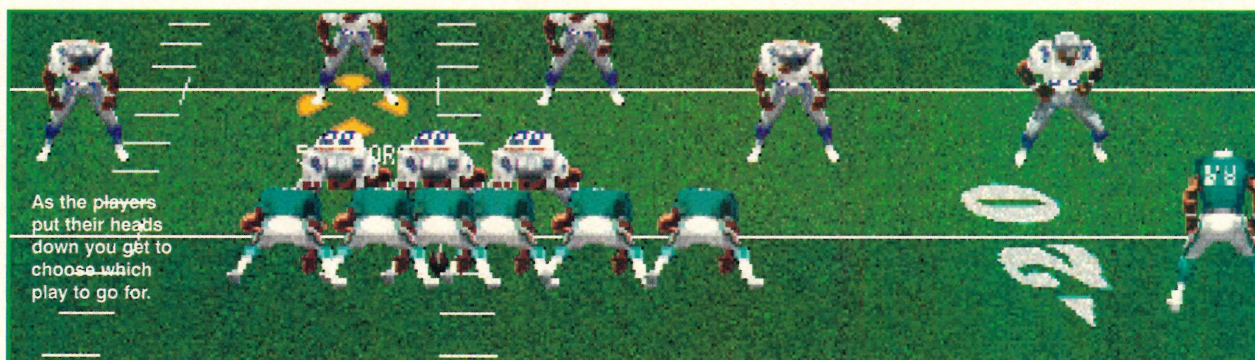
kickstart the game. Its combination of intuitive controls, sharp graphics and gameplay that accurately captured the skills and thrills of gridiron, made it the game that sold the Sega console to the USA. Before *Sonic the Hedgehog*, this was the Mega Drive's killer app. Since then, EA has played its usual game of releasing a new, slightly better, slightly tweaked update on an annual basis, but every version has played pretty much like the first Mega Drive one.

This new PC *Madden '97* is the first major departure from the format since the 1993 3DO version, and at first glance you

might mistake it for any old PC American football game. It has the same slightly pixelly players, the same default camera view (derived from the Mega Drive *Madden*) and the same 'feel' – that of simulation and not game. But that's just a first impression. It may not be as graphically satisfying as its console parents, but thankfully *Madden '97* has retained the all-important characteristics of accessible, exciting gameplay married to a realistic approach to the sport.

The 'meat' of the game, the offensive and defensive playbooks and the NFL teams, are as comprehensive as any sim

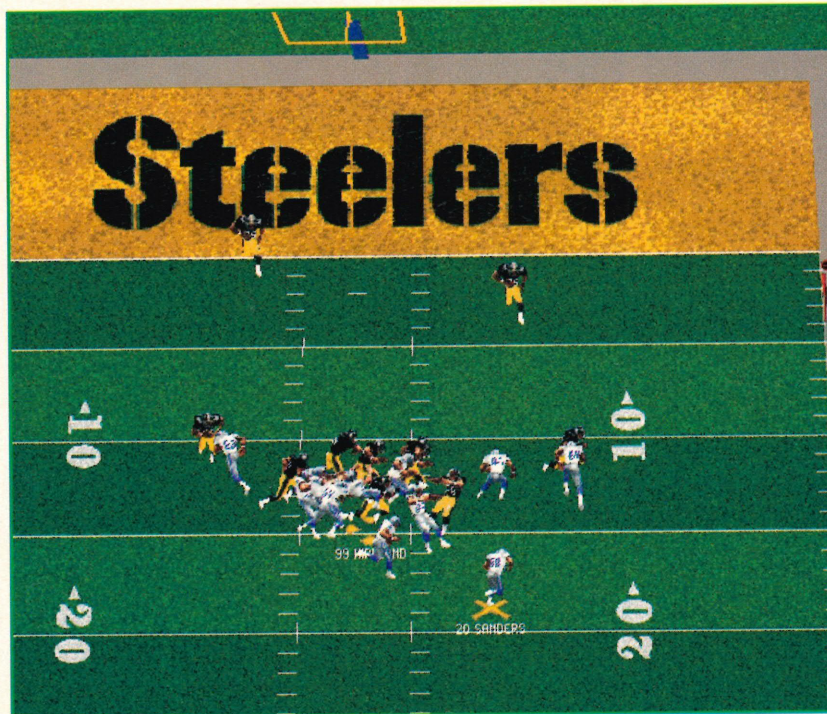
**Strategies and tactics you've picked up from sleepless nights watching the Channel 4 coverage can be put into practice here.**



As the players put their heads down you get to choose which play to go for.



Sing hallelujah! Touchdowns are greeted with elation by this man wearing a stripey shirt.



Typically for an EA Sports brand game, *Madden '97* features a glitzy front end with television style presentation (EA fact: the brand was originally called the EA Sports Network).

and offer enough choice to compliment any playing style. As the old NFL adage goes, great defenses win Super Bowls and you'll certainly be punished if you don't keep the opposition in check. Stop their running game and you'll force them to take risks by passing all the time, but let one pass slip through and you could be burned for a touchdown.

When you're on offense, it's the other way around. It's crucial to get a 100-yard-plus game out of your running back, so you can keep your options open and your opponent guessing. Now, all this is standard American football philosophy – as preached by John Madden on TV, coincidentally – but what makes *Madden '97* so good is the way that it plays just as you think it should.

### Sleepless nights

Strategies and tactics you've picked up from sleepless nights watching the Channel 4 coverage of the NFL can be put into practice here, and the results are gratifyingly true to life. For instance, playing a strongarm John Elway-style offense will make for spectacular plays, and you'll probably want to save every one of your touchdowns. However, you'll lose as many games as you win and be

lucky to make the play-offs. Similarly, an aggressive Raiders-style defense will incur a lot of penalties, but may injure a key member of the opposition out of the game.

### High-step or spin

It's all down to you and how you play on the pitch. Once you've called the play, you take control of the quarterback at the snap and it's then either handed off automatically to the runner or you drop back into the pocket if it's a passing play. If the runner takes the ball, you then control him and have to fight your way forward for a few yards. Once you're running, you can straight-arm defenders, high-step or spin through tackles and dive for an extra yard.

Passing is a little more complex, requiring you to stay on your toes as the quarterback, avoiding blitzing defenders while looking for a free receiver, selecting him and getting the pass off. If the receiver makes the catch you then control him as you do a runner. Sounds simple enough in theory, but what doesn't come across in a review is how fluidly it all works in practice. This is, of course, the big secret to the continuing success of the *John Madden*

series. It really does play better than any other gridiron game.

Now, EA used to be a little miserly in the options department, and early versions of *Madden* had just an exhibition match and a small tournament. Not so the PC version. There's the full league of 30 teams, along with 68 All-time and Superbowl teams and six hidden teams. You can even trade and create players and make custom teams and leagues. For novices, there's even the Madden University – a tutorial and scouting report on each team.

### Breathtaking depth

For years, other PC gridiron games have tried to copy the *Madden* format but none has matched up to the console king. This long-awaited conversion delivers what the others couldn't – a great arcade game with all the breathtaking depth of a sim. And it serves all of this up in a beautifully presented package with play-by-play commentary by Madden and his TV partner Pat Summerall, a movable game camera and incidental footage by NFL Films. Welcome back, John Madden. Don't leave it so long next time. (CB)

### FAR FROM THE MADDEN CROWD

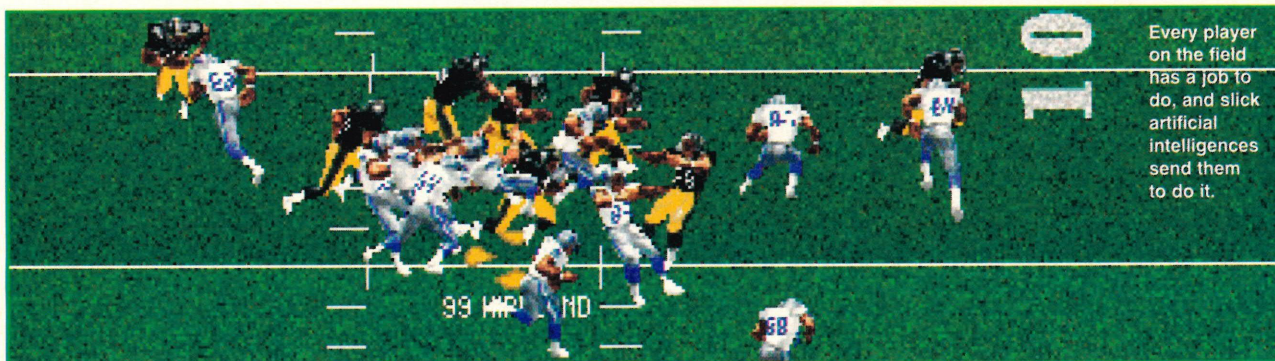
Damn. Can't think of anything to go with this ponderfully great Thomas Hardy-esque heading. Uh, Thomas Hardy used to play quarterback for the Casterbridge Donkeys... no, that's wrong, isn't it. Erm... ah, yes! Julie Christie starred in the movie of *Far From The Madding Crowd* and she was also in *Heaven Can Wait*, where Warren Beatty was an American Football star who died but wasn't supposed to. Or something. And in the film he played for the LA Rams. Who in real-life don't play in LA anymore. And that's accurately reflected in the up-to-date teams in *Madden '97*. (Wahey – a game relevant point!).

**DEVELOPER**  
Stormfront Studios  
**PUBLISHER**  
Electronic Arts  
**CONTACT**  
01753 549442  
**PRICE**  
£40  
**MINIMUM SYSTEM**  
P60, 8Mb RAM, SVGA, CD-ROM

PC REVIEW VERDICT

At last, the finest American football game makes it to the PC and shows how it should be done.

9



Every player on the field has a job to do, and slick artificial intelligences send them to do it.

### NEXT MONTH

We'll bring you the world exclusive playable demo of *Madden '97* on CD Review

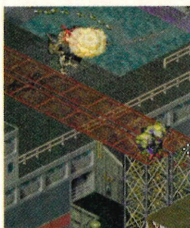
## THE TROUBLE WITH 3D

Isometric and forced perspective 3D graphics have been used in shoot-'em-ups ever since the early 80s arcade hit *Zaxxon*. Quite why developers insist on using a graphical style that deliberately obscures some of the screen and therefore some of your enemies, in what's a kill-or-be-killed situation, is a mystery. The 3D view also severely limits the area around your ship/fighter/heavily-armed blokey that can be seen on screen, as seen in EA's *Desert Strike* and *Jungle Strike* and others. Then, of course, there's the "Am I really aiming at what I think I'm aiming at?" problem that faces any player of a 3D blaster.

But in the ongoing rush towards more realistic, nicer-looking graphics, 3D makes for much prettier pictures than old-fashioned 2D, despite the latter's obvious advantages in the simple, nay pure, world of the shoot-'em-up. (Bah, humbug... used to be able to get 10 games and still have change from 50 pence in my day... etc).



Bodies litter the tarmac in a scene of utter carnage. *Bedlam* lets you see robots that bleed.



Your robot teeters on some scaffolding high above *Bedlam*'s ground. Some areas below are off limits.



There are 25 missions to tackle, split into five zones of five with increasing difficulty.

This is a game that could have been directed by Robert (El Mariachi, *Desperado*) Rodriguez. This is a game that plays like a hot-wired *Syndicate*, with scant regard for such middle-class notions as restraint or respect for property. This is a game that serves up so many targets that you won't know where to point your gunsight next. This is *Bedlam*.

It's a title that fits the game well. A shoot-'em-up set over 25 sprawling isometric 3D levels, it jettisons *Syndicate*'s battling corporations hokum and is happy to play things as a straight blaster. Which, of course, may be a good or bad thing, depending on how attached you are to Bullfrog's ageing game. Oh, there is some kind of story tacked on to

*Bedlam*, but it's pure window dressing. This one's all about robots shooting lots of things, demolishing lots of buildings and causing all manner of vehicles to explode.

Mouse-controlled, you shift the pointer around the screen and press the left button to move your robot to that point or the right one to fire that way. Once you get the hang of these slightly awkward controls and the blistering speed of the game, you can proceed with the destruction. To complete each level you'll have to destroy a major target – an enemy installation – and along the way you can also torch some secondary targets to boost your score or your bank balance.

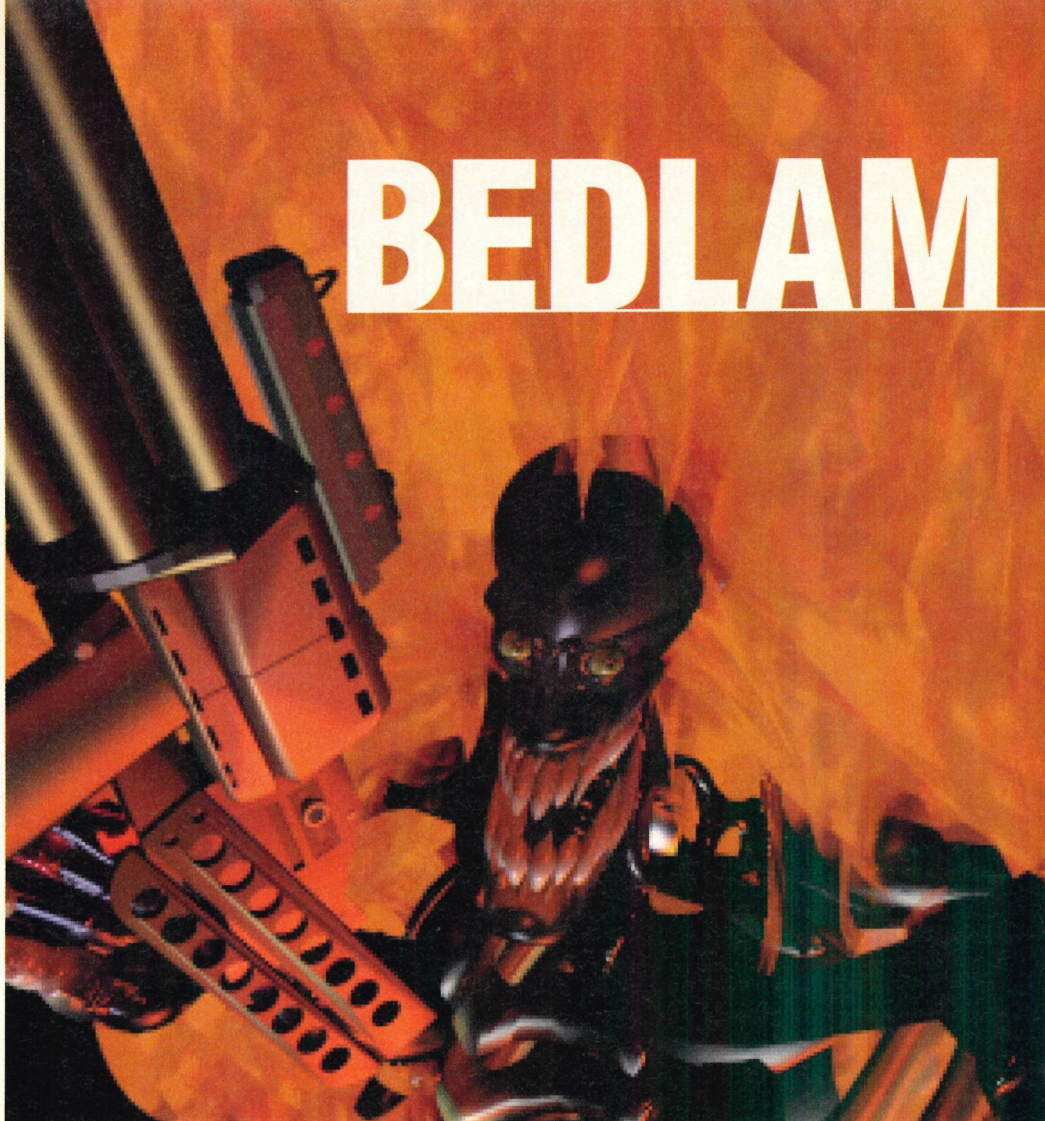
Yes, bank balance. You can get extra cash to festoon your robot with bigger and

better guns, which you will need to take on the later, more difficult levels. The chase for cash adds a little to the game but most of *Bedlam*'s substance comes from the design of its levels. Certain areas of each level are initially sealed by electric grids forcing you to search and destroy hidden switches to turn them off. Thus the average game of *Bedlam* revolves around finding where things are on a level and then with clearing a path through the army of robotic soldiers and automated defences to the switches and targets.

It's not horrifically complex, but then again it was never really trying to be. As a fast-moving shoot-'em-up, *Bedlam* certainly has the required amount of speed and blasting, but by opting for the *Syndicate*-style it lacks the straight-ahead purity of, say, *Tempest 2000*. It's a little too easy to lose your robot in all the sound and fury and inadvertently send it coasting over mines or blast something you didn't want to hit.

You get the feeling, rather like a Robert Rodriguez movie, that the designers were so intent on cramming everything they liked into this game (guns, robots, explosions and so on) that they didn't keep their eyes on the big picture. It's easy enough to lose yourself in all the satisfying destruction in *Bedlam* but in the end all the excess clutters and confuses the essentially solid basic game-play. Less is more, as they say. (CB)

# BEDLAM



**Robots, guns, mines, bombs and large tanks of highly combustible fuel. Pass me the ammo, dear.**

## DEVELOPER

Mirage

## PUBLISHER

GT Interactive

## CONTACT

0171 258 3791

## PRICE

£40

## MINIMUM SYSTEM

486DX/33, 8Mb RAM, SVGA, double speed CD drive

Fast-paced action that's probably a little unfocused and too cluttered for its own good.

PC REVIEW VERDICT

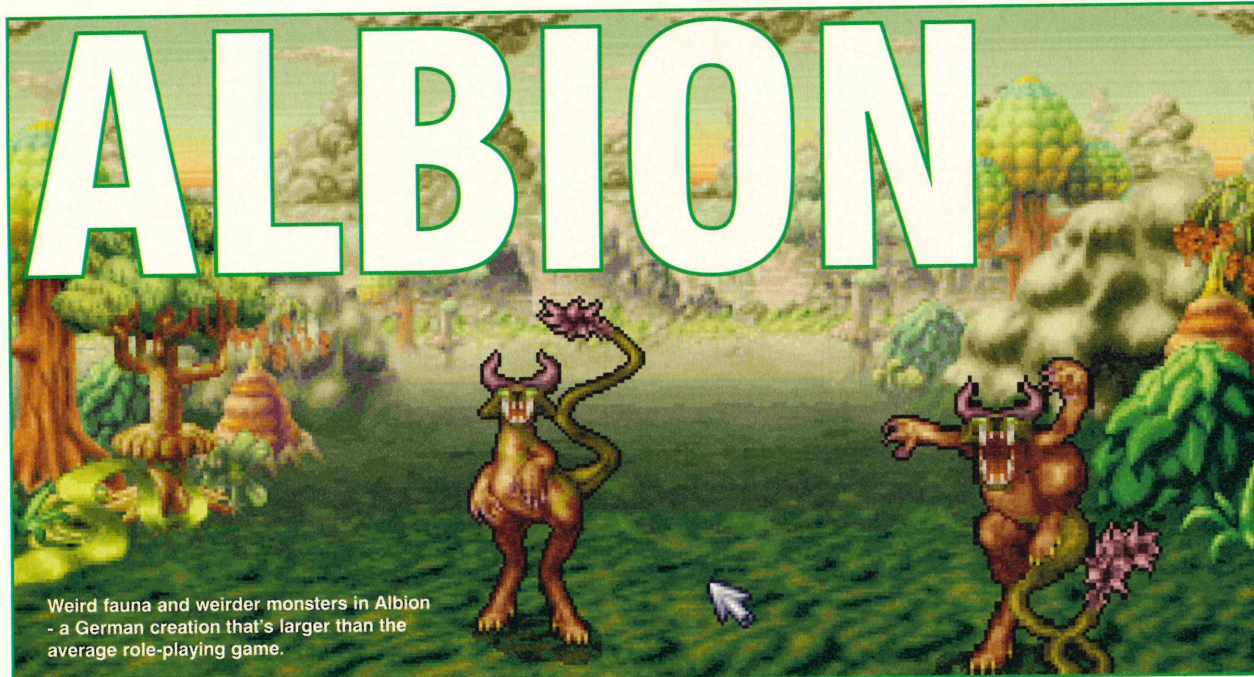


A typical scene from *Bedlam*. All is quiet in the compound on a sleepy industrial estate until...



...you arrive, let go with every single weapon in your arsenal and reduce the whole place to ashes in a few brief seconds.





Weird fauna and weirder monsters in Albion - a German creation that's larger than the average role-playing game.

## LOOKS FAMILIAR...

...to Origin's acclaimed *Ultima* series, give or take the odd sci-fi scenery and use of mix-and-match viewing styles. Origin's games are arguably more carefully-crafted affairs, but lack Albion's strange inventiveness and sheer size. For further adventures in an overhead 3D style, check out *Pagan: Ultima 8*, £44.99 from Electronic Arts. First-person types would do well to check out *Ultima Underworld*. It's better than its sequel and a snip at £14.99 from Hit Squad.



*Ultima Underworld* - a 3D search and slash game way ahead of its time.

## For role-players starved of any new adventures, Blue Byte's timely offering is a veritable seven-course feast.

Lots of numbers and dice with an improbable number of sides - that's what many still associate role-playing games with. But that's never really what it was meant to be about - the rules and statistics were only ever supposed to be a means to an end. A good story has always been the most important element... with a fair amount of scrapping, naturally.

*Albion* is the first sizeable PC role-playing game for some time, and my, is it sizeable. But while there's a formidable amount of game lurking in *Albion*, the weird tale of a newly-discovered planet and its strange inhabitants is actually very integral to everything that goes on.

As stories go, the opening scenes of *Albion* are frustratingly disappointing. You are mild-mannered Tom Driscoll, a reconnaissance pilot on spaceship Toronto. Sent to recover valuable raw materials from an uninhabited planet in a distant solar system, it's not long before you're corralled into an emergency landing on the planet. And it's also not very long before things start to pick up, as you discover that the data

about this allegedly uninhabited planet is very wrong indeed.

And so begins a twisty, turny, goose-chase of a scenario, with all kinds of mini-tasks, set-piece scenes and revelations to spice things up. This is all promising stuff - the background information on the alien race is tremendously detailed, and while the creatures themselves look rather comical, there's so much logic and structure to their civilisation that it's hard not to get drawn in.

But remember, this is a role-playing game. And to this end, there are new party members to recruit, character stats to keep an eye on, spells to cast, and objects to manipulate. All this is a little less impressive, with an enthusiasm for numbers that's quite scary, and falls on clichéd ideas just a little too much. But then, spells, health bars and object characteristics are what RPGers seem to want from this kind of game.

Exploration and combat are obviously also important aspects of *Albion*, and it's here that the cut of the cloth doesn't quite impress as much as the size of it. No less than four different viewpoints are used

throughout the game (five if you count the map screen) - including a board style turns-based screen for combat, two magnifications of semi-3D overhead view, and *Doom*-style first-person 3D view. The latter is by far the most modern, but thanks to a map system which constructs the landscape from rectangles, the views do tend to look rather chessboard-esque.

What confuses most, though, is the way the game switches between these views - the scale of buildings and characters isn't faithfully translated from one viewpoint to another, even though the geography is. And while the overhead view is the most effective for travelling around, it looks a little passé - despite the obvious amount of work that's gone into it. Audio is better handled - a mix of neat atmospheric sounds and muzak.

Such problems are only ever going to be mild irritants for role-playing enthusiasts, however. The effective combat system, richly detailed game world and well convoluted plotline far outweigh the presentation shortfalls. And they may say size isn't everything, but it sure does help. (MR)

## CD REVIEW

Enjoy the playable one-level demo.

DEVELOPER  
Blue Byte  
PUBLISHER  
Blue Byte  
CONTACT  
01604 232200

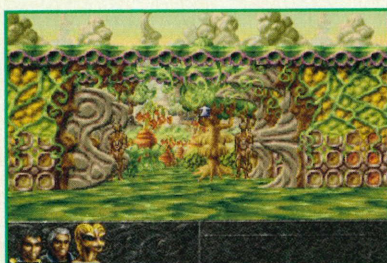
PRICE  
£49.99  
MINIMUM SYSTEM  
486/33, 8Mb RAM,  
5Mb hard disk space,  
double CD-ROM  
drive, mouse

PC REVIEW VERDICT

Role-playing with a splash of psychedelia. What it lacks in airs and graces it makes up for in sheer size



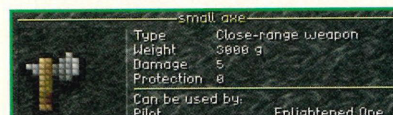
## Views within views



1 After wandering through the already confusing city streets, things get even more disorientating when the party leaves through the main gates.



2 The view switches to this mode, and the city seems to shrink. Fights cause everything to switch back to first-person 3D again. Weird.



You don't need to worry too much about the weights of the various weapons.



This is the viewpoint used for much of the exploration within buildings. The characters look basic, but the environments are fetching.



## NAME DROPPING

Cyberdreams' collaboration with Harlan Ellison isn't the first time it's done this sort of thing. Its first stab at the spooky graphic adventure was *Dark Seed*, a game based upon the strange art of H R Giger. This is the man who designed the original creatures and scenes for the *Alien* movie, and whose visions of mechanical and biological fusing attract as much as they repulse. *Dark Seed* is hard to get hold of these days, but keep an eye out for *Dark Seed 2* – featuring yet more gothic scenes and scary alien worlds.



# I HAVE NO MOUTH AND I MUST SCREAM

Sci-fi writer Harlan Ellison's cult short story is transformed into a graphic adventure, a thinking man's game.

**A**rtistic merit isn't something your regular PC title boasts. While video gaming is great at stimulating the senses and inducing adrenaline rushes, few manage to engage the brain. And yet *I Have No Mouth But I Must Scream* is a thinker's game, one which encompasses wider issues. Based on a classic Harlan Ellison short story – one of the ten most reprinted stories in the English language, fact fans – this is adventure-gaming that tells a story neither pulpish or simply shocking. Instead,

it tells an intriguing, often disturbing story in which the five protagonists are anything but likeable. Talk about risk-taking.

*I Have No Mouth* is set on an alternative earth – one which saw the Americans, Chinese and Russians engineer massive supercomputers, starting in 1945 and ending in 1989 when the machines began to think for themselves. It was at this point that they spoke to each other, formed a single machine and set about destroying the human race in the Final War. 109 years later

and the machine, called AM, rules supreme, keeping just five humans alive for sadistic tortures and games. *I Have No Mouth* begins as the final game is about to take place, with AM putting these five flawed individuals through their own tailor-made nightmares. Spooky.

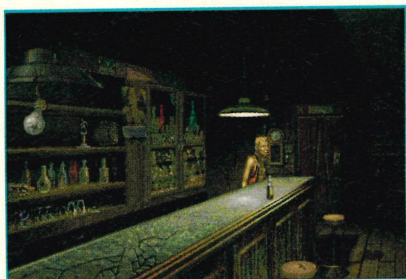
It's stylish, but also the type of subject that could more than put the wind up the Mary Whitehouse brigade. However, it might be right on the edge of what is acceptable, but it never feels gratuitous. Rather, this is a



A golden room filled with golden statues – not yellow-streaked Ellen's idea of heaven.



Nimdok discovers the golem – a legend among the Lost Tribe to which he once belonged. But how to go about giving the golem the power of sight?



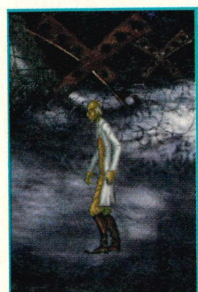
Ever a loner, Gorrister contemplates a brewski and wonders why AM won't let him die.



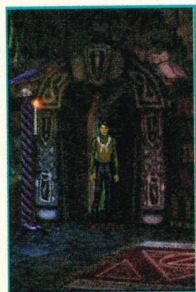
The richly detailed rug and subtle shading on the Knight's armour typifies the presentation.



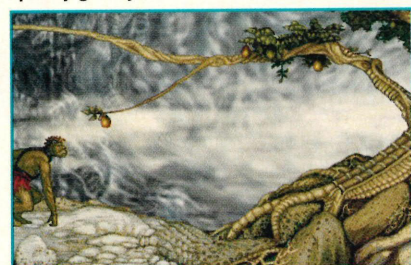
A room filled with monitors – each capable of showing two scenes. What can it all mean?



Nimdok attempts to redeem himself in a spooky graveyard.



So spooky even Fox Mulder would give it a wide berth.



Benny finds a fruit tree, but his throat is far too wrecked for him to actually eat any food.



Demonic goings-on in devilishly strange world. One of these sponce things is bound to open up a secret passageway – at least that's what always works in the movies.

game which – like the original story – highlights human nature and all its weaknesses. It's only by helping the characters to become more human that AM can be defeated. In truth, this lofty concept doesn't always quite work. There are enough locked doors and hidden room puzzles to remind the player that this is familiar adventure game territory, and while the story is undoubtedly the most literary ever to feature in a computer game,

the lack of dimension to conversations and reliance on object manipulation tends to detract from its weightiness.

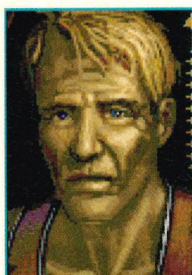
From *Dark Seed* creators Cyberdreams, *I Have No Mouth* isn't a perfect story by any means, but it remains a new benchmark in terms of the story itself. As well-plotted as the best LucasArts titles, it benefits from a script that computer game designers alone simply wouldn't have the courage to

produce. The use of five mini-adventures will undoubtedly cramp your style if you're more into epic adventures, and that the treatment isn't quite as radical as the material itself is quite disappointing. But, just this once, a graphic adventure has successfully managed to approach the depth and satisfaction offered by real literature. Let's hope that Cyberdreams can continue to refine its adventurous pursuits. (MR)

**As well-plotted as the best LucasArts titles, *I Have No Mouth* benefits from a script that computer game designers alone don't produce.**

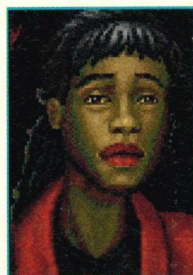
## Five alive

The last remaining humans have been kept alive by the evil AM for the last 100 years, and subjected to tortures befitting their personality defects and various crimes and misdemeanors. Meet the last hopes for the human race...



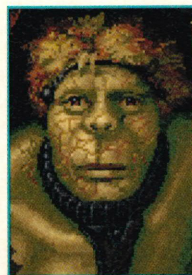
### GORRISTER

Like the other characters, Gorrister is far removed from the average adventure game character. You have to draw him away from his suicidal tendencies.



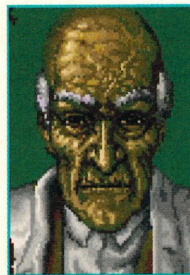
### ELLEN

The last female and an hysteric when faced with the colour yellow, Ellen is placed into an Egyptian-themed hell. She must overcome those irrational fears.



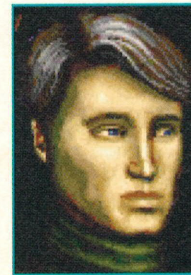
### BENNY

Once upon a time he was a grizzled army vet, now he's an ape-like mutation. AM's brutality has left Benny a wreck. A symbol of his lack of humanity, perhaps?



### NIMDOK

Nimdok is the most controversial figure. The world created by AM reflects the horror of his experiments on his fellow race way back in 1945. Is there any hope for this barbarian?



### TED

Suave and cynical, Ted's mission is to be honourable for the noblest of reasons. Demon summoning, a witch and other grisly characters also figure in his tale, naturally.

## HARLAN WHO?

Chances are that if you've read science fiction you're familiar with the name Harlan Ellison. To date, he has written 64 books, as well as 1,700 other articles of literature, including scripts for such TV series as *Star Trek*, *The Outer Limits* and *Return Of The Twilight Zone*. His books have also earned him a record number of Hugo awards, several Bram Stoker awards, two Edgar Allen Poe Awards and awards from the Writers' Guild Of America. Along the way he's also found time to oversee such famous works as the famed *Dangerous Visions* anthologies.

### DEVELOPER

Cyberdreams

### PUBLISHER

Acclaim

### CONTACT

0171 344 5000

### PRICE

£39.99

### MINIMUM SYSTEM

486/33, 4Mb RAM, 15Mb hard disk space, VESA compatible SVGA video, double-speed CD-ROM drive, all major soundcards

## PC REVIEW VERDICT

Great adult adventure gaming with much of the impact of real storytelling.

7



# FRONT PAGE SPORTS: BASEBALL '96

## CD REVIEW

The exclusive playable demo.

### DEVELOPER

Dynamix

### PUBLISHER

Sierra

### CONTACT

01734 303322

### PRICE

£32.99

### MINIMUM SYSTEM

486 DX/66, 8Mb, Win 3.1 or higher, SVGA, double speed CD-ROM

A heavyweight hitter which piles on the detail – but at the expense of the gameplay.

PC REVIEW VERDICT

7

With no regular TV coverage over here, baseball remains a minority interest in the UK. Still, that doesn't stop the big US companies from unloading their big baseball sims on us year after year, so it would seem that PC game-players, at least, have taken America's national sport to their hearts.

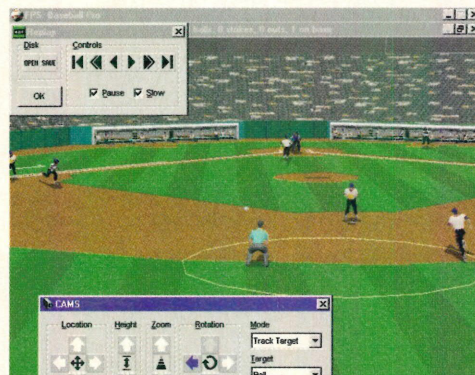
Sierra's *Front Page Sport: Baseball* series has been running for four years now, and the pattern has remained the same throughout – a mammoth, number-crunching engine which chews over all the players stats and variables you could imagine (including weather conditions and

the stadium construction) and spits them out in a precise and painstakingly accurate simulation.

So precise and painstakingly accurate that it all becomes a little characterless, in fact. It's as if the game's designers have taken their task so very seriously that they've forgotten that it's just a game, a sport.

That it's supposed to be fun.

Presentation is similarly formal, with the screen divided up into windows containing tables, an overhead view, the main game screen and other info. Far more visually satisfying is the CAMS system –

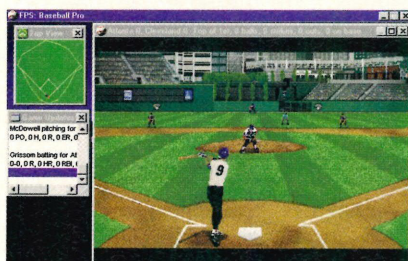


FPS: Baseball '96 CAMS system is great; review your finest bits of action from various viewpoints.

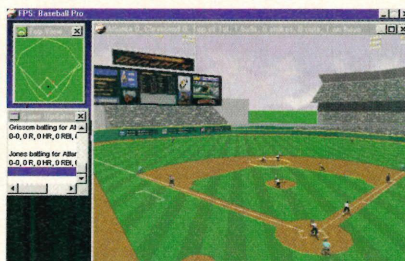
undoubtedly the game's most impressive feature. This is a hugely comprehensive camera system that enables you to take a look at replays of the on-pitch action from all manner of viewpoints.

*Front Page Sports: Baseball*

'96 is an uncompromising baseball sim, which boasts many accurate features that UK gamers sadly won't appreciate. The scope of the game, for those who want a hard-playing sim, is huge, but anyone who just "wants a go" at baseball should try elsewhere. (CB)



Getting ready for the pitch. The Windows presentation of key screens is clinically crisp.



The default view has the players as little stick men – visually unattractive, but it plays well.



Frank Thomas

# BIG HURT BASEBALL

### PUBLISHER

Iguana

### DEVELOPER

Acclaim

### CONTACT

0171 344 5000

### PRICE

£39.99

### MINIMUM SYSTEM

486 DX/66, 8Mb, Win 3.1 or higher, SVGA, double speed CD-ROM

Simple enough for casual two-player knockouts, yet has long-term potential.

PC REVIEW VERDICT

8

This is a different take on America's national sport. As you'd expect, with a celebrity licence it's a much more approachable, mass appeal arcade-style baseball game with little of the weighty simulation baggage of *Front Page Sports: Baseball '96*. That's not to say it's lightweight: it still has team rosters based on player stats and has a season play option.

At first it looks as if it takes the same standard approach as *FPS: Baseball '96* and practically every other baseball game since Accolade's *Hardball* in 1986. The batter steps up to the plate, the pitcher is in the distance on the mound and the camera's where the catcher is. But hit a ball and the camera races off after it. This enables the fielding team player to get his player to the

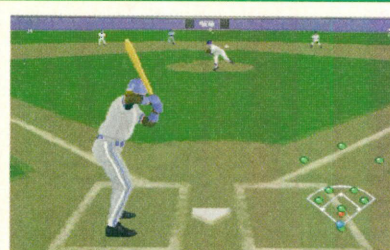
ball, leaving the batting player watching the small diagram of the diamond in the corner to keep track of his runners.

It's a fluid system with seamless game cameras but pitching and hitting options are limited. Home Run derbies and quick

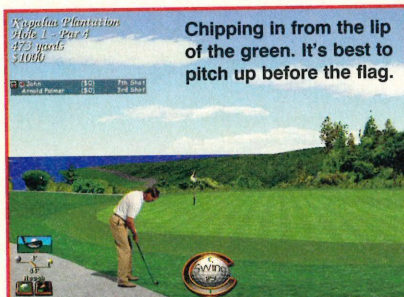
play-offs also cater for the novice, as do options to alter the number of innings, outs and other features. It's not strictly baseball by the book, and avid fans of the sport may grumble with discontent, but it makes for a much more playable, more fun game. (CB)



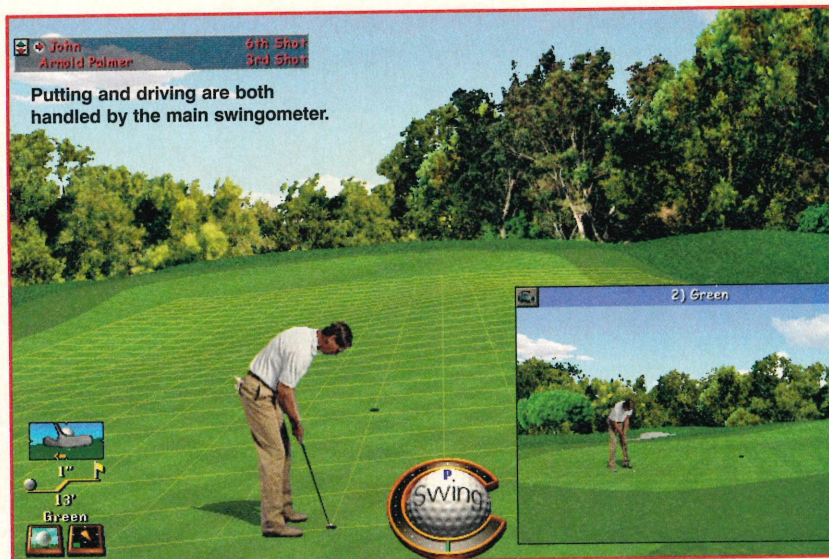
The effective dynamic camera system follows the action around without cutting.



The shabby textures and drab palette make the game look very grey and murky.



Chipping in from the lip of the green. It's best to pitch up before the flag.



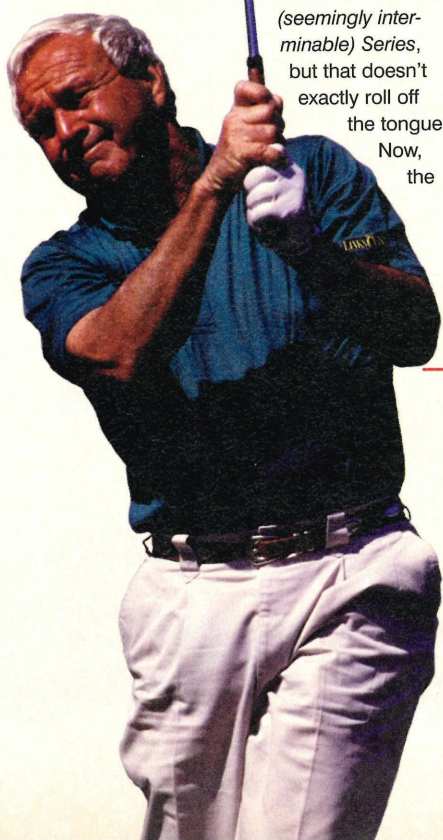
Putting and driving are both handled by the main swingometer.

# LINKS LS 1997

A swanky new three-CD 'LS 1997 Edition' of the long-serving golf game. That should be one up on the rest of the golf club.

Any idea what the 'LS' could stand for in *Links LS*? Say "Links LS" out loud in a deep Tommy Vance and it sounds a bit like a husky new aftershave. Say it in a witty Angus Deayton voice and it sounds a bit like a new Japanese car. It does not, though, sound like a golf sim. However, give the game its full title of *Links: Legends of Sport* and most people could make an educated guess.

Here's the man himself, Arnold Palmer.



It should be called *Links: Latest in the (seemingly interminable) Series*, but that doesn't exactly roll off the tongue. Now, the

sporting legend of the title could be creaky old Arnold Palmer – once a great golfer but now expert at lending his name to crazy golf courses in Exmouth – who appears in this game looking like your dad. However, the sporting legend could be the *Links* game itself. Ten years ago, Access released *Leaderboard* on the Commodore 64 and it was nothing short of revolutionary. The first golf game to feature 3D views from the perspective of the golfer, it set the pattern for every major and minor golf sim, including its direct descendant, *Links*.

## The links of Links LS

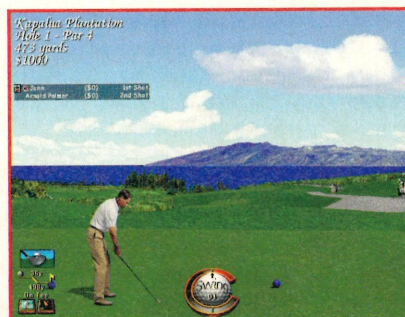
The *Links* games have been knocking around for years, and Access has maintained a high standard. *Links* veterans will find many familiar features here, such as the optional windows showing camera views, top-down views and side-on profiles of the hole. Also familiar are the outstanding graphics – those of you looking to ruin a good walk with lots of jittery mouse clicks need look no further. Picturesque coastal vistas, healthy-looking trees, undulating

fairways and neatly-mowed greens – *Links LS* paints a pretty picture.

All of which means diddly squat without some quality gameplay. Thankfully, Access has been making golf games long enough to know its stuff; *Links LS* works beautifully as both a sim and as a game. It uses a straightforward swingometer to control the power and direction of the shot, enabling beginners to get around the course but tough enough to make a par round an achievement.

*Links LS* comes supplied with three courses, but Access has admirably maintained its policy of back-compatibility. Previous *Links* courses, either from earlier incarnations of the game or add-on packs can be played, making available a huge number of courses. One supplied course is 'Arnold Palmer at Latrobe Country Club' which enables you to play the course, play against Arnie and take a 'virtual reality' tour of Latrobe with Arnie.

A fine golf game with crisp picture postcard graphics and a refined simulation at its heart, *Links LS* is one of the PC's premium sporting titles. (CB)



*Links LS* can confidently claim to have the prettiest looking golf courses on the PC.



Accurately gauge the lie of the land in *Links LS* by laying a grid over the surface of the fairway.

## MATCHPLAY – LINKS VS PGA

So, you've only got the cash for one golf game, and you want to know which to buy. Our advice to you is – get more cash. You see, *Links LS 1997* and *PGA Tour Golf '96* are much of a very attractive muchness. It's like having to choose between blondes and brunettes.

The only real difference between *PGA* and *Links* is the tone. EA's *PGA* is a little brasher, brighter and its graphics are slightly bigger. Access's *Links* is more restrained, more pictorial and less instantly appealing. ITV or BBC, if you will. Jim Rosenthal or Des 'Wine 'em, dine 'em' Lynam. You pays your money...

## DEVELOPER

Access

PUBLISHER

EIDOS Interactive

CONTACT

0121 606 1800

PRICE

£49.99

MINIMUM SYSTEM

66MHz 486, 8Mb RAM, Win 3.1, SVGA graphics

PC REVIEW VERDICT

Everything you want from a quality sports sim – sharp graphics, fine gameplay and staying power.

8

## CD REVIEW

Next month we bring you the exclusive playable demo of *Links LS 1997*.



### F FOR FAKE

It's amazing that management games are still with us. They do after all date from the days when computers were just too rubbish to properly simulate any real-time sport. We're talking ZX Spectrums, Atari 400s and Commodore Vic 20s. A complex 3D engine with sophisticated play mechanics based around an accurate simulation? Nein danke! Some pages of badly laid out text and icons, a few cacky stick men and some more pages of badly laid out text? Ooh that'll do nicely, thank you very much.



# TEAM F1

**You are playing this game. You are in the shoes of a Formula One team manager. You are not enjoying it. You are about to find out why.**

**PUBLISHER**  
Electronic Arts  
**DEVELOPER**  
Ascaron  
**CONTACT**  
01753 549442  
**PRICE**  
£39.99  
**MINIMUM SYSTEM**  
486DX, 8Mb, 13Mb hard disk, SVGA, double speed CD-ROM

A Formula One management game looks dated and plays badly. This one doesn't even make the grid.

# 3

PC REVIEW VERDICT

**W**ho is the best Formula One driver in the world? Be honest. Put that "Two World Wars and one World Cup" jingoism aside and admit that it's Michael Schumacher. Yeah, Damon's going to win the championship this year but we all know Schuey is the natural born driver. And he's German. As are Ascaron, developers of *Team F1*. So, do his fellow countrymen share Michael's innate talent for Formula One? Er, no.

Ascaron (as Ascon) were, you may recall, responsible for *On The Ball* – quite the worst excuse for a football management game to ever stumble onto the PC. It really was unfeasibly tedious. A cankerous collection of badly-drawn screens mated with an illogical menu system and a none-too-realistic 'simulation'. The bad news is *Team F1* follows exactly the same format, except you're a Formula One team manager rather than a soccer boss.

The game is played from a series of screens showing various 'scenes'. There's your office which, if you click on things like a phone, a picture or a presentation stand leads off to another screen where you can make deals with sponsors, parts suppliers and drivers. Further screens at the racetrack let you decide the set up for the car, test it

and go for optimum performance on whichever circuit the Grand Prix is on.

The screens look awful. The garish colours and quirky penmanship give it the look of those dreadful painted illustrations that accompany love stories in the *People's Friend* – all square-jawed Patrick Mower

types in brown polo neck sweaters. Qualifying sessions and races, events which really should be the most exciting part of any F1 sim, are no better. But, after all, this is a management sim so the cosmetics of the game shouldn't matter all that much. No, it's the "You are Frank Williams" experience

that really matters here.

Unfortunately, that experience is almost as lamentable as the graphics. Finding sponsors, sourcing parts suppliers and hiring drivers are, no doubt, crucial elements in a successful Formula One team. However, clicking on plus or minus arrows and hitting a button marked "Negotiate" hardly make for enthralling gameplay, especially as skill doesn't seem to be a major factor.

The serious decision making

at the various tracks for testing, qualifying and racing feels similarly compromised. At times, you feel as if you're going through the motions of umpteenth mouse clicks just to get the car on the track. You are responsible for the most minute details – like checking enough tyres were packed in the van and it seems as if your team don't do a thing unless told to. You must have a high tolerance for routine operations to play this game – it plays like you're maintaining a production line rather than taking part in one of the most exciting and demanding sports around.

*Team F1* simulates the tedious and plays up the pointless aspects of Formula One management. You never get the feeling you're in control of an F1 team – in fact, you never get the feeling you're really in control of the game. It's hard to work out if *Team F1* is too ambitious or just too amateurish. Whatever, it's too much of a chore to bother playing. (CB)

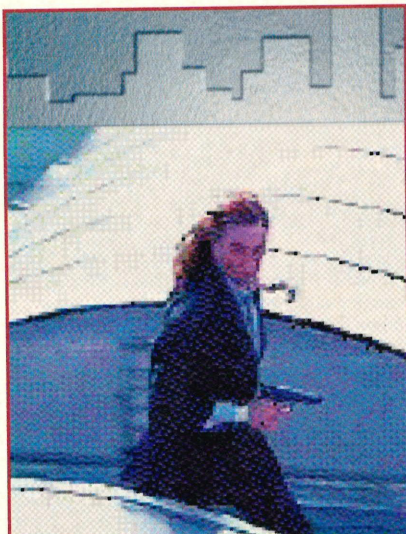


There's not much to be said for the graphics either – garish colours and quirky drawing.



It will take you simply ages just to get your Formula One car onto the racing track.

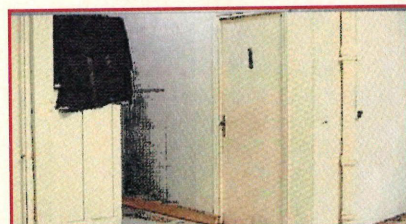




In the intro, you're chased across the rooftops. It's exciting and well-edited, and therefore totally unlike the rest of the game.



Having escaped from the hammy Jean Reno wannabee, you get back to your flat to find a completely unclichéd large, fat, biker thug.



The odd close-up is usually in rendered SVGA, which makes the compressed video of the bulk of the game look tatty.



A photograph taken on the set during the making of *Urban Runner*. It's a fat man... with a gun. Don't mention his facial hair, body fat ratio or tattoo, and you might just escape with your life.

# URBAN RUNNER

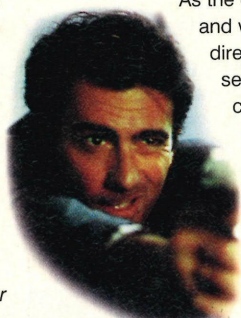
Games is games and movies is movies and ne'er the twain shall meet. Well, not in *Urban Runner*, at any rate.

It's always a worry when a game touts itself as an interactive movie, or an action thriller in this case. What's even more worrying is that *Urban Runner*'s box blurb claims that it has a plot that would make Hitchcock proud. Even more proud of his own films, no doubt, as it's hard to see the old boy making a cameo appearance to spit on this. But, in a bizarre twist that Hitch might have let through on to one of the lesser episodes of his TV show, *Urban Runner* actually starts off promisingly.

You are Max Gardner, an American in Paris, an innocent journalist on the run from the cops for a murder you didn't commit and

from a gang who, presumably, did commit it.

As the credits run, you sit back and watch a fast-paced, well-directed and edited action sequence in which Max is chased across the rooftops of Paris by a gun-toting thug. Hey, this might be good, you think. This might really be an interactive movie. They've cracked it, you think. Then the game starts.



You get a first-person perspective view of the place that Max is in and a cursor to move around on it. Arrows appear when you move to an

exit to another location, or move closer to something. A hand appears if Max can pick up or twiddle with something. Sounds familiar. They call it "Click 'n' grab". You'll recognise it as point 'n' click and that's pretty much what the game is. A point 'n' click adventure dressed up in some fanciful movie costumery.

When you click to do something, you trigger a new clip of video as the camera races off to wherever you wanted to go. In theory, it was probably really dynamic. In practice, it's tedious. Sitting through clips again and again as you trawl around a location is dull, repetitive and makes you wish you could just skip them and get on with the meat of the game.

Unfortunately, there's not much meat to be had. There's usually only a few clickable things in each location and most of the time, it's all down to trial and error. Too often success revolves around clicking on something you swore was just part of the background, because you could pick it out on the poorly detailed pictures. The game is also very linear and seems split between sets of linked adventure locations – a squat, a warehouse, a hotel – and sequences of confusingly-edited FMV which pour out the ridiculous plot.

*Urban Runner* is far too basic to stand comparison to the point 'n' click adventures it's closest to. As for its interactive thriller potential, it's more interactive to press pause every few seconds whilst watching *Killing Zöe* (especially the bits with Julie Delpy in bed). It's another piece of chewing gum in the popcorn of the interactive movie. (CB)

## THE FRENCH CONNECTION

*Urban Runner* was developed by Paris outfit Coktel Vision, but isn't nearly as good as other movie-style games from other French studios – for example *Alone In The Dark*, *Little Big Adventure* and *Fade To Black*.

**DEVELOPER**  
Sierra  
**PUBLISHER**  
Coktel Vision  
**CONTACT**  
01734 303322  
**PRICE**  
£44.99  
**MINIMUM SYSTEM**  
486 DX2/66, double speed CD-ROM drive, SVGA, 8Mb, Win 3.1

PC REVIEW VERDICT

Poor, interactive movie. A weak story, linear gameplay and bad acting make for a sickening combo.

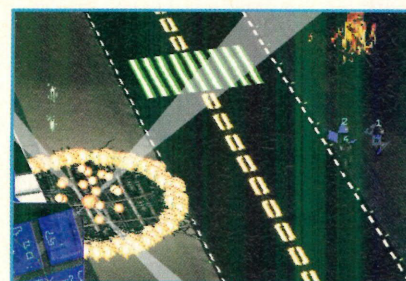
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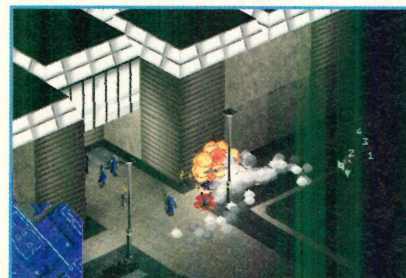
This hotel lobby scene is much like any other in the game. Click on something and you trigger a video clip which flows from the shot of the scene you're in.



Trigger happy gamers can also take the side of the Church Of The New Epoch, and fight against the Syndicate. Whichever, a Tarantino-esque level of violence is promised.



Veterans even get to play with mines and bombs capable of ripping huge holes in the ground and levelling entire tower blocks.



Each inhabitant actually casts a shadow – all correctly positioned to take into account any light source.

# SYNDICATE WARS

We return to the shadowy future depicted in cult cyber-hit *Syndicate*. This time, there's a whole load of clever 3D stuff.



There was a time when the future was filled with strange new worlds and sleek chrome spacecraft. These days the average vision of things to come is one in which the action is firmly routed on the remains of this world. Where eternal night ensures the noir-ish stylings are always present, and where heavy rains pound down on ugly metal towers, and the grim faces of citizens are illuminated by neon signs and gunfire as well as murky street lamps. Yep, if *Syndicate Wars* is to be believed, the future owes a very large debt to Ridley Scott's *Blade Runner*.

We've been here before, of course. Bullfrog's original *Syndicate* game was – in its day – a masterpiece of gritty style. An action-packed strategy game with as much emphasis on smart drugs and firepower as the actual missions, *Syndicate* can be seen as the forerunner of countless point 'n' click 'n' kill games, right up to Mirage's *Bedlam*, reviewed page 42. Not one to give up on a top idea, Bullfrog has revived the same concept and explored the possibilities hinted at

in the original. There are similarly moody visuals and audio (the ambient tracks and voice samples work a treat), but this time the cityscapes are realised in full 3D. And, whereas the original simply dropped players into the cybernetic shoes of the Syndicate operatives, the sequel pits our old trigger-happy friends against the Church Of The New Epoch. Choosing to fight for this lot brings missions with a more destructive edge, and – best of all – lots of cool weapons right from the start.

## Aesthetic choice

It's the mission structures which have been most improved in *Syndicate Wars*.

Not only does a cohesive story build up, but you can play the same mission from both perspectives: if you're working for the Syndicate, your mission might involve protecting some scientists, but reload the game as a Church member and you'll get the chance to do the attacking.

It's a damn fine idea, and a

number of different characteristics adds greatly to the feeling that choosing either the syndicate or Church is a more than aesthetic choice.

It's all the futuristic hardware that people will go a bundle on. There's ample opportunity for building up an arsenal of guns, bombs and rockets, as well as special

'persuader' equipment for recruiting people to the cause – or calming them down. The plot has it that chips are planted in citizens' brains, with the aim of making them view the world in an artificially sweetened way. But the Church has made a number malfunction, leaving citizens bewildered and potentially dangerous. It's

here that the syndicate troops come in, with the task of calming such cases – or simply eliminating the problem. The Church acolytes, meanwhile, do their best to recruit such people to their own malevolent cause.

*Syndicate Wars* is positively aglow with good plot devices and well handled science



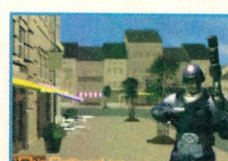
Remember to upgrade the body parts of your cyborgs.

## CD REVIEW

Next month we bring you the full level, playable demo

Reality ain't what it used to be

Much of *Syndicate Wars* is based on the malfunctioning of Utopia chips, which prevent the population from seeing the world as it really is. Anybody unlucky enough to become enlightened faces a swift sorting out.

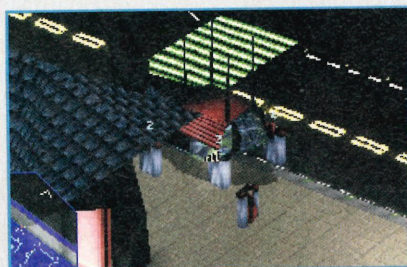




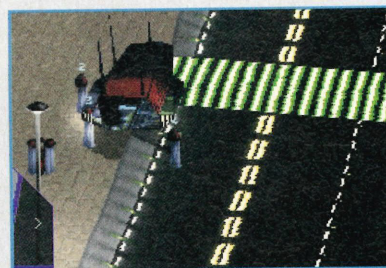
Look at it this way Having trouble keeping track of the explosive goings on? Change your perspective!



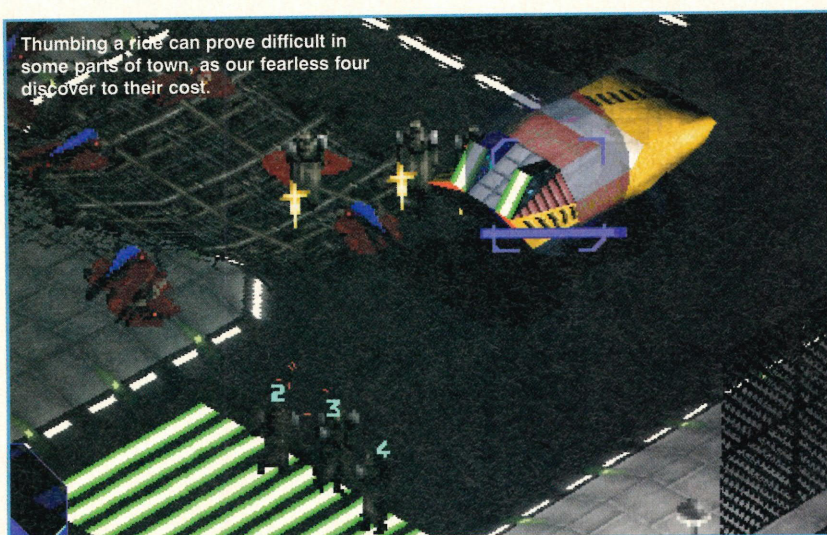
**1** Our fabulous foursome is about to nick an abandoned car. If only that building wasn't obscuring the scene.



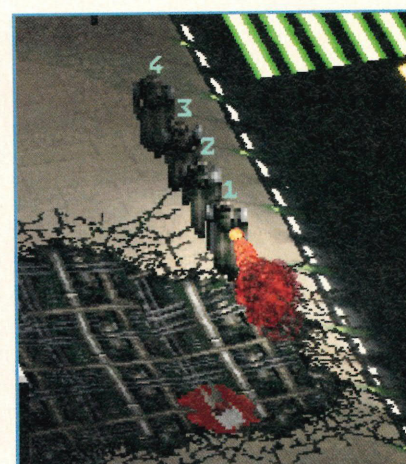
**2** Simply spin the viewpoint around and you can get a far clearer picture of exactly what's going on.



**3** Turn it around even further and everything becomes clear. Let's take the motor and get the hell out of here.



Thumbing a ride can prove difficult in some parts of town, as our fearless four discover to their cost.



Take a look at his rather wild laser gun. It's just so much more visual than straight machine gun fire, darling.

fiction elements. Genetically enhancing the operatives is familiar stuff, but that Syndicate staple – the application of mood-altering drugs during missions – remains a piece of real genius. And while actual missions often boil down to eliminating, protecting or persuading, its the numerous diversions (such as raising funds by robbing banks) that add much to the basic framework.

### Unremitting greyness

What's less convincing is the newfangled 3D system. Cityscapes are packed with vision-obscuring buildings, for a start. You can rotate the viewpoint until operatives are visible again, but even so, the maze of streets and walkways is confusing. And while shadowy streets are all very well, the unremitting greyness is a touch boring, and not helped by the chunky textures used to construct the various buildings. Mooching around such dull locations in search of the next waypoint is more likely to induce eye strain than convince anyone they're the next Harrison Ford. This is a shame, because the cities really do seem alive with activity – people going about their business, scream-

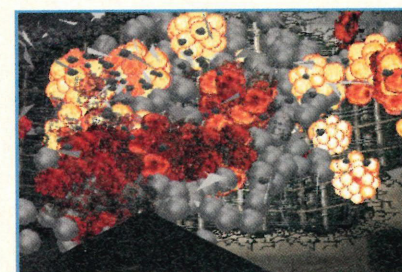
ing when a gun is pulled and so on. And the action sequences themselves are tasty, laser beams and rockets skittering here and there, and – on later levels – entire buildings falling to the ground in spectacular style.

Syndicate Wars leaves you feeling both elated and disappointed. Certainly the much expanded storyline and addition of all that new hardware is a welcome way to expand on the original's vision. But the clumsy, confusing feel of the 3D system suggests that maybe the simple isometric style of old was better. And while the extra bells and whistles are great, there's a slight nagging feeling of having been here before, such is the familiarity of the point-and-click format.

Few games can conjure up a foreboding atmosphere as well as this, though: Bullfrog remains master of hidden complexity, dressing up the most cunning of plots in a seemingly simple mission system and easy peasy user interface. Think of it as an overhaul of a classic game concept rather than a true sequel. And if it doesn't have quite the same impact as the original, you can hardly blame Bullfrog for being so groundbreaking first time round, can you? (MR)



If walking round buildings gets to be a pain, then players armed to the teeth can just remove the obstructions.



Such sights really are the pièce de résistance of Syndicate Wars. And they add some much needed colour to the scene.

### IT ALL BEGAN WITH...

...the original Syndicate back in 1992. Although the game world was depicted in a rather more basic isometric 3D format, and the plot offered less opportunities for context-sensitive missions, many of the features of Syndicate Wars – such as the drug enhancements and gratuitous violence – can be found in the original. What's more, it costs just £15 these days from those nice people at Hit Squad. Contact them on 0161 832 6633.

**DEVELOPER**  
Bullfrog  
**PUBLISHER**  
Electronic Arts  
**CONTACT**  
01483 579399  
**PRICE**  
£39.99  
**MINIMUM SYSTEM**  
486/66, 8Mb RAM,  
50Mb hard disk space,  
VESA compatible SVGA  
video, double speed  
CD-ROM drive, mouse,  
all major soundcards

**PC REVIEW VERDICT**  
The gameplay hasn't changed much. But this remains a solid refinement over the original Syndicate.

**8**

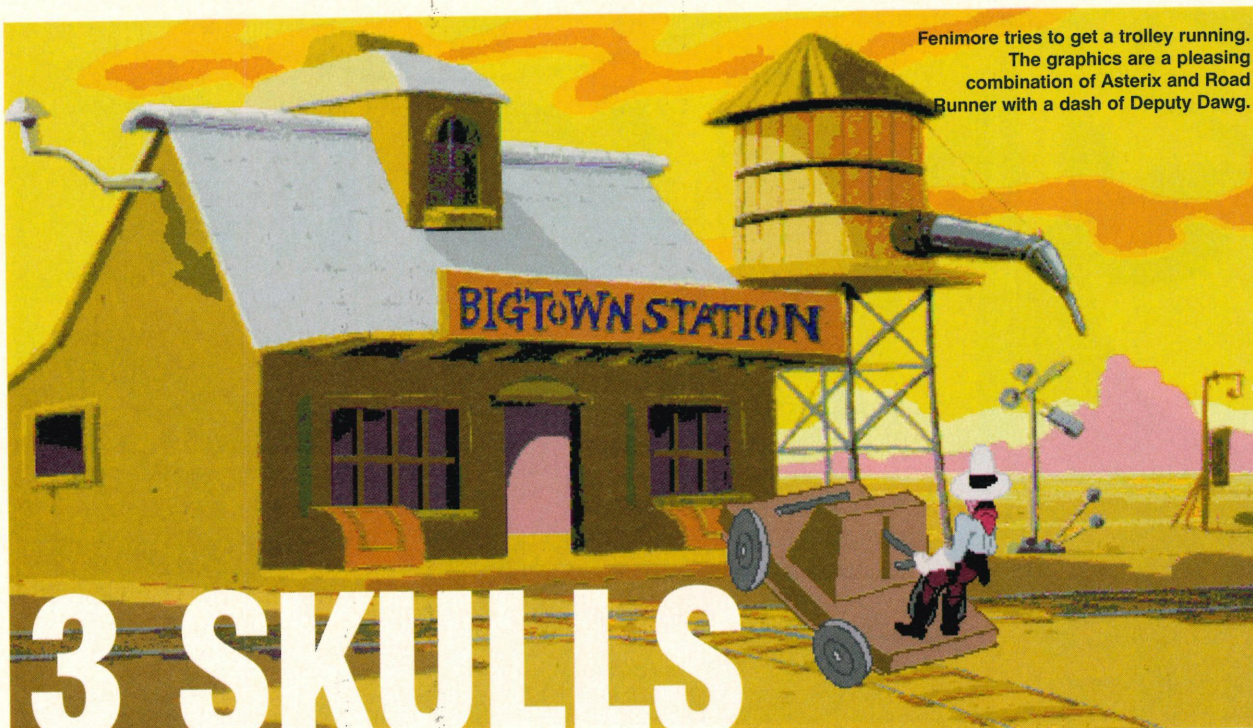


# AS THE KILLING BEGINS...

LET THE KILLING BEGINS...

bits  
corporation

Published by Philips Media. © 1996 Bits Corporation Limited.



Fenimore tries to get a trolley running. The graphics are a pleasing combination of Asterix and Road Runner with a dash of Deputy Dawg.

# 3 SKULLS of the TOLTECS

It's got cowboys. It's got ancient monoliths. But is it any good?

As Clint Eastwood said at the end of *The Good, The Bad and The Ugly*, "There are two kinds of people in this world. Those with guns and those who dig." Now, if – by some strange twist of fate – Clint was not a top Hollywood actor-director and was instead a humble games reviewer, he might well have said, "There are two kinds of games in this world. Those that are original and those that are *3 Skulls Of The Toltecs*." But, given Clint's complete lack of knowledge of PC games, he could never cut it as a games reviewer.

## Old Ground

*3 Skulls Of The Toltecs* is, to put it bluntly, a collection of tired old wild west clichés strung loosely together in a point 'n' click adventure that really would like to be *Sam 'n' Max Hit The Road*. The trouble is, the wild west has been done to death by countless movies, TV shows and even a few games. The result – good Westerns, serious or jokey are a rarity. The same seems to be holding true for games.

Ever since *The Secret Of Monkey Island*, it seems every other adventure game has wanted to be a rip-roaring, Pythonesque satire, sprinkling brainteasers amongst "wacky" characters and "ker-azy" plotlines. *3 Skulls* is no different. You play Fenimore Fillmore, a wandering cowboy who witnesses a gang of bandits trying to steal a golden skull from an old man. After you save the old man, he tells you the story of the three skulls and how, when placed together on an ancient monolith, they reveal the treasure of the Toltecs.

Your mission then is to track down the three skulls. This means wandering around from location to location, chatting to characters and acting upon whatever they say. Early on, a lot of the problems are based around seemingly-interminable conversations via a simple multiple choice interface. If ploughing through a set of inane questions and answers where most of the alternatives are crap jokes is your idea of an adventure you'll be at home here.

Anyone hoping for a more substantial challenge will be disappointed. Too many of the problems posed in *3 Skulls Of The Toltecs* are solved not by deduction or invention but by simply doing what you're told. Characters don't just give you clues or drop subtle hints they telegraph each puzzle to such an extent that all you're left to do is trudge from A to B filling in the pieces.

## Snappy Graphics

The only thing that *3 Skulls Of The Toltecs* does have going for it is the graphics. The snappy comic-book style is refreshingly different from the usual graphic adventure fare. Character speech and music are more than up to scratch too. The real shame is that both the plot and gameplay can't live up to the cosmetics.

The mechanics of point 'n' click adventures are becoming dated and newcomers have got to be pretty special to pull it off. With its hackneyed old setting, reheated gameplay and well-worn gags *3 Skulls Of The Toltecs* just doesn't have it. (CB)

Just how many cowboy games have there been? Well, Infogrames' *Alone In The Dark 3* was set in a wild west ghost town. And, a few years back, the very same Frenchies also served up *North and South* – a comic-book licence that was a surprisingly playable, if lightweight American Civil War strategy game.

Best of all the wild west games, though, are the arcade games. The gun-toting *Mad Dog McCree* coin-ops were among the first laserdisc games, Konami's *Sunset Riders* was a blast and Capcom's *Ancient Gunsmoke* was a superb vertically scrolling shoot 'em up. With all that gunplay, it's hard to believe there's never been a cowboy *Doom/Quake* clone – it would sure beat all the endless sci-fi and fantasy ones. Are you listening Id? Oh, and next month we'll let you into a secret or two about the Lucasarts cowboy adventure *Outlaws* – scheduled for release next year.

**DEVELOPER**  
Warner Interactive  
**PUBLISHER**  
Revivtronic  
**CONTACT**  
0171 391 4323  
**PRICE**  
£39.99  
**MINIMUM SYSTEM**  
486 DX4/100, 8Mb  
RAM, CD-ROM

**PC REVIEW VERDICT**  
Tired old point 'n' click dolled up in some very fine cowboy cartoons. Looks good but plays bad.

5



The Sheriff's dumb deputy needs help filling out his inventory but unless you've chatted to the barman in the saloon you won't get the right answers to his questions. Grrr.



A large portion of the gameplay in *3 Skulls Of The Toltecs* revolves around Fenimore's conversations, all of which are handled by a simple multiple choice interface.



Camp-dressing cowboy hero Fenimore is controlled by a few simple text controls at the base of the screen which give some idea of the complexity (or lack of it) in the game.



► With its Disney-quality animation and a rollercoaster plot which wouldn't be out of place in an action movie, *Broken Sword*'s graphic adventure antics amount to a lot more than mere clowning around.



# BROKEN SWORD

## SHADOW OF THE TEMPLARS

### LITERARY BACKGROUND

Inspired by the myths, legends and rumours about the Templars, Charles Cecil and his team at Revolution – who made *Broken Sword* – did plenty of background research for the game. Consequently, anyone who buys the game will receive a booklet with it telling them briefly about this mysterious order of knights. If you want to go into greater depth, however, the semi-historical novel *Foucault's Pendulum*, by Umberto Eco, was a key book whose tone is replicated to a degree in *Broken Sword*. (You might need a degree to understand the book, however.) See page seven for our audience with Charles Cecil.

**A Knights Templar cartoon caper – who'd have expected the first LucasArts-beating adventure to be so strange?**

Let's make no bones about this – adventure games have been in a rut for the last couple of years. Aside from fundamentally flawed attempts to combine movies and adventures, familiar characters have trudged through hackneyed scenarios, facing the same old puzzles and farting around in front of static backgrounds. Now it seems that the Brits are ready to lead the way, thanks to Revolution's *Broken Sword*. Not so much an adventure gaming, er, revolution, as a refinement of the point-and-click genre to such a level that everything else just looks like a relic from another decade.

Cartoon presentation is the order of the day – what could be more universally appealing? *Broken Sword* includes stupendous, fluid animations for every character, backdrop and event, with truly

context-sensitive music, conversations handled via cute little icons, and pop-up, cut-away cartoon-animated scenes. It looks almost good enough to eat.

The Revolution bods have used this friendly format to tell a story just as weighty as it is humorous, and as long as it is tall. This, you see, is the tale of one George Stobbard, an American in Paris, with a large chip on his shoulder. He's determined to get to the bottom of a mystery involving a killer clown, a beautiful photographer, and the treasure of the Knights Templar. A comedy Raymond Chandler meets Indiana Jones in Europe, anyone?

### Eye candy

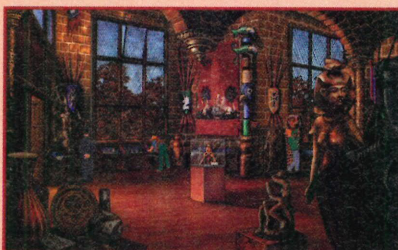
As the game opens, George is recovering from an explosion outside a Paris café. Leaves blow across the front of the scene,

objects are visibly collected by George rather than simply disappearing when George gets near, and moving around the scene reveals several layers in the scrolling. The effort put into the minor details is enormous, and while it's all essentially just eye candy, it's exactly the sort of thing that adventure games have been crying out for. What's more, the workings of the game are equally polished.

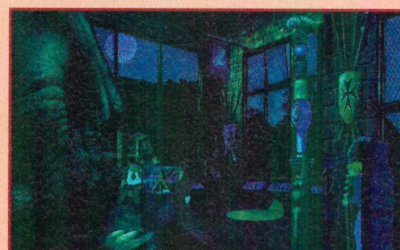
To play *Broken Sword* is to play an adventure designed with the player in mind, a very rare thing. Nicking the best bits of other control systems, the game enables you to rapidly move through scenes, navigate through conversations with ease, and utilise objects in a thoroughly neat manner. Sometimes, elements of a scene look like they should be interactive but aren't, yet it's hard to think of an alternative

### Night moves

While in certain adventures the game designers strive to be wacky and obscure when inventing puzzles, the makers of *Broken Sword* worked hard to make their interactive conundrums practical and integral to the plot of the game. Here's a quick peek at the museum puzzle...



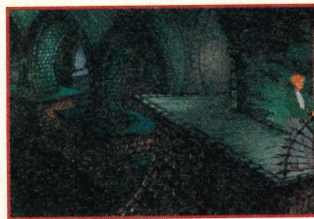
**1** Wait till the guard looks away, then do a mummy impression for a few hours.



**2** Emerge once the sun has gone down, and the crooks are out to play.



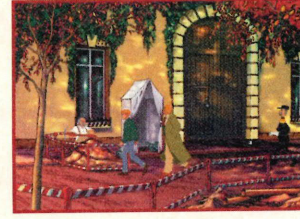
George swans around, chatting up girllies David Essex-style, and investigating killer clowns.



Following the clown who blew up the bistro, George gets lost in the wrong sort of Paris underground.



Emerging in the courtyard of a hotel, George is about to have a very hard time explaining himself.



George meets Inspector Rosso – a particularly bizarre member of the local constabulary.

## THE KNIGHTS TEMPLAR

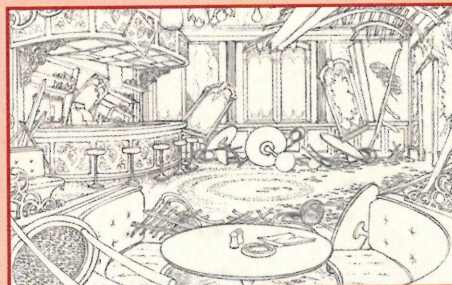


An abbreviation of the full title, *Order of the Poor Knights of Christ and the Temple Of Solomon*, the Knights Templar were warrior monks who formed in the 1st Crusade to protect pilgrims from Saracen attacks. From only nine knights, the order swelled in numbers and power, receiving blessing from the Pope in 1129, and total independence from all other rulers. At the height of their power they held great wealth – although each personally upheld a vow of poverty – and were seen as the defenders of the Holy Land. Heavy losses in the 3rd Crusade reduced their power, and the efforts of the French king Philip IV left the order in tatters with many imprisoned, killed or reduced to begging. But their riches – an armada of ships, and numerous relics rumoured to include The Holy Grail – have never been discovered.

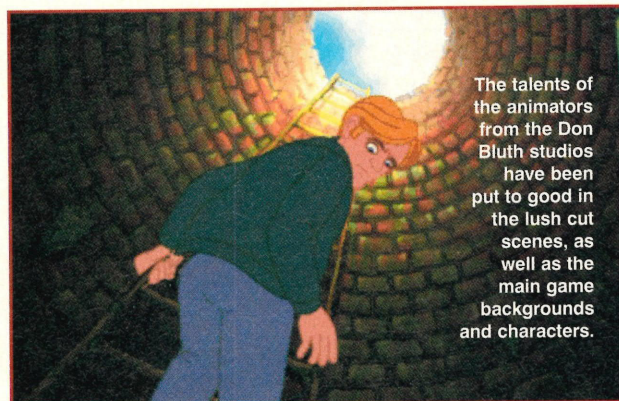
## Behind the scenes

Painting the whole world with a Rainbow – using the Revolution method.

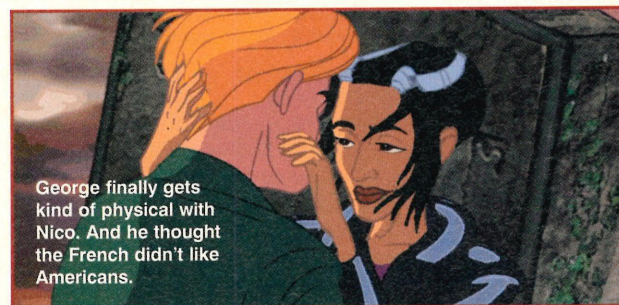
**1** You have to find an artist bod to sketch out the bones of a scene. Once this is ready, it's time to call in the crayon wielders.



**2** Et viola, one gorgeously painted game scene, with various characters that actually blend in and interact with the scenery.



The talents of the animators from the Don Bluth studios have been put to good in the lush cut scenes, as well as the main game backgrounds and characters.



George finally gets kind of physical with Nico. And he thought the French didn't like Americans.

to this age-old problem. Examining every tiny detail only kills pace, after all. Locations are also used economically – each area seems to hold some significance, without the storyline getting too contrived.

### Fluid and natural

Puzzles are logical and almost never resort to cliché. And chatting to other characters involves a mixture of sit-back-and-watch elements and true control – with topics of conversation selected using an icon bar on the screen. Want to chat with the workman about the killer clown? Just cycle to the talk icon, click the cursor over the workman, then click on the image of the clown in the menu bar. It's all so fluid and natural, and what's more, the protagonists almost always have something important or interesting to say. Speech is usually delivered in impressively

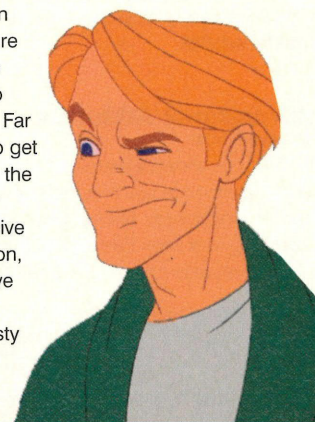
character-filled style – helped along by some professional voice acting.

But it's the music which is the crowning glory of *Broken Sword's* audio. Composed by *Inspector Morse*-man Barrington Pheloung, the arrangements are wonderfully orchestral and genuinely respond to what's going on. You might not even notice how good the music is simply because it's so seamlessly bonded to the rest of the game.

That pretty much sums up *Broken Sword*. Although it features exceptional attention to detail, all this clever stuff often goes unnoticed, because you simply become immersed in the game itself. Just as you stop thinking about the effects in a movie like *Jurassic Park* and lose yourself in the action, in fact.

If there's a major criticism to level at the game, it's perhaps that the execution,

despite all the fantastic bells and whistles feels all too familiar. But then, it's a style which has endured because it works so damn effectively. And there's perhaps too much to do. But who's going to complain about an adventure with too much to do, eh? Far better to get stuck in the stupidly impressive animation, evocative sound and twisty plot. **(MR)**



**DEVELOPER**  
Revolution Software  
**PUBLISHER**  
Virgin Interactive  
**CONTACT**  
0171 368 2255  
**PRICE**  
£39.99  
**MINIMUM SYSTEM**  
486/33, 8Mb RAM,  
2Mb hard disk  
space, double speed  
CD-ROM drive,  
SVGA, mouse, all  
major soundcards

PC REVIEW VERDICT

Near-perfect execution of a great script. A new standard for the point 'n' click adventure has been set.

9



**3** Easy does it – and just watch that amazing cartoon animation in action.



**4** Find a totem pole and tell all-American hero George to give it a mighty push.



**5** And with a bit of luck that'll be a blow to the enemy's plans.



# REISSUES

Got a tenner burning a hole in your pocket? Then you'll be waiting to buy one of these...



Only you can stop the sun setting forever on these picturesque lands in *Betrayal at Krondor*.

## Betrayal at Krondor

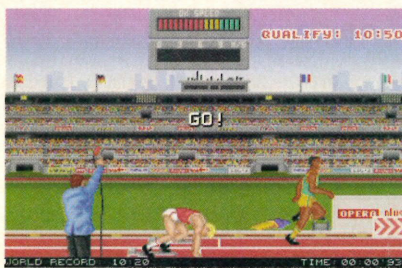
Sierra Originals, £9.99

Based on the best-selling Riftwar series by Raymond E Feist, *Betrayal at Krondor* was one of the first RPGs to tout itself as an interactive story, rather than a series of implausibly populated dungeon dens. Within a chapter the plot is non-linear; you can choose to work towards your next goal or you can simply wander around bringing cold steel to elves and trolls. It's a bit dated, but it's still much better than arguing over who's forgotten the D6s.

## International Athletics

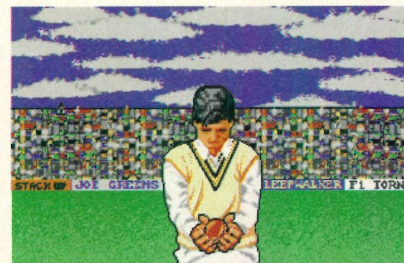
Regenerator, £4.99

After the slick showmanship and big bucks of Atlanta, it's good to see that there remains a place for amateurism. *International Athletics* is to sports games what Eddie the Eagle is to professional ski-jumping – good to chuckle



Slow off the blocks: "If I just wait here, maybe everyone will forget I was ever involved."

at, but safely crap in action. Here you can thrill to the two-man 100m dash. Marvel at the all-purpose sprites. Wonder why the men face seven events. Thank the Lord that there aren't any more. This proves the point that that British athletes don't need more money, they just need a copy of *International Athletics* stuffed through their letterboxes. They'd soon get the message.



*World Cricket*: occasionally, a man in a skirt grabs your ball. Sound exciting? It isn't.

## World Cricket

Regenerator, £4.99

The Regenerator moniker is incredibly apt. Time and taste conspire to bury a game, but back it comes, an ugly mess made worse by the passage of time. A zombie that can't be killed. There are some fantastic bargains out at the moment, with top-notch graphics and hall-of-fame gameplay, and *World Cricket* isn't one of them. Rather, it's the kind of fun-challenged game that you refused to buy on the C64. Bring forth the holy water!

## Outpost

Sierra Classics, £9.99

If you've ever wanted to rule over a barren lump of rock, here's your chance. In *Outpost*, you plant your moonboots in the space dust and heroically say: "Home is here, people – it might not be much but it's what God has given us". You build the obvious essentials of a space colony, like walls to keep space out, police stations and agricultural domes. *Outpost* isn't a bad game, but it quickly gets repetitive. Remember, in space no one can hear you snore. (OB)

## Bargain of the month

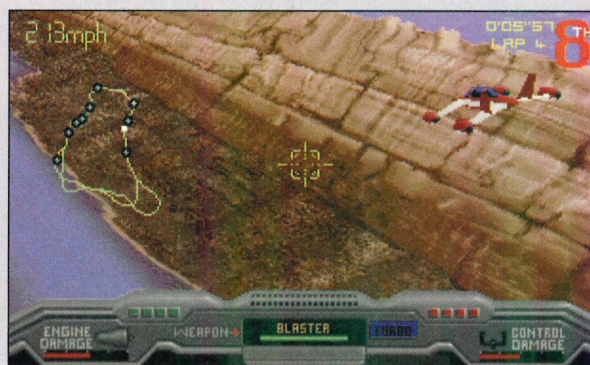
*Slipstream 5000* is back, and it's as breathtaking as ever

### Slipstream 5000

Gremlin Interactive, £9.99

*Slipstream 5000* was unveiled to rapturous applause, with everyone hailing it a technological miracle. Today, it just seems a decent new release, but one that happens to cost just a tenner. Launching you into the sky and the future as an airborne racer, you shoot along supersmooth 3D canyons and fjords, with real-time 3D tracks so slippery you might think they're spooled from the CD.

Even better, the action's a blast. Your opponents taunt you, shoot at you, then overtake you; the gameplay is as perfectly balanced as your turbo-assisted aircraft. *Slipstream 5000* is simply one of those reissues that will cause racing game producers across the globe to run fuming to the development suite, shaking our budget page at the team and shouting "now look where your afternoon beer and *Quake* sessions have got us".



*Slipstream 5000*: proof that there is such a thing as value for money.

ARE YOU THE CRACK PILOT  
THE POPULATION IS  
DYING FOR?



PC CD ROM

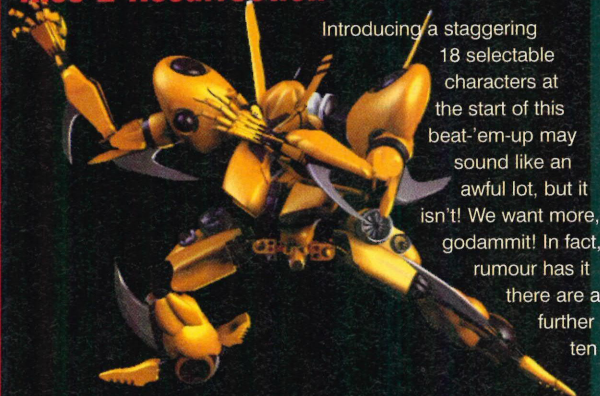


KNOW A GOOD TIP OR TWO? SHARE IT WITH THE WORLD AND BE THE SAVIOUR OF MILLIONS – BY WRITING TO US AT PC REVIEW, FUTURE PUBLISHING, 30 MONMOUTH STREET, BATH BA2 2BW. OR E-MAIL US AT PCREVIEW@FUTURENET.CO.UK.

# PLAY TO WIN

More extensive than the most extensive thing ever, PC Review's tips deliver full-on gaming power in easy-to-swallow bite-sized nibbles.

## Rise 2 Resurrection



Introducing a staggering 18 selectable characters at the start of this beat-'em-up may sound like an awful lot, but it isn't! We want more, godammit! In fact, rumour has it there are a further ten

hidden characters in *Rise 2* as rewards for excessively brilliant play. But what if you're totally rubbish? What if, even on your hundredth attempt, you can never get further than the first fight? Easy, old son – all you have to do is cheat.

At the robot selection screen press: Right, Right, Right, Up, Up, Down, Left, Left, Down, Down and hidden character Vitriol (a souped-up Steppenwolf) will become available. After every few fights, another new character appears, regardless of your dismal in-game performance.



If you bought *Rise 2* you'll just love our extra players cheat. Have fun.

## Metaltech: Earthseige

Why not try out this recently unearthed cheat for this fantastic, exoskeleton-stomping classic?

From the main menu, start or resume a campaign. Now go back to the main menu and select single mission. Choose any of the missions offered, enter briefing, then click on armament. Grab yourself a big hulking Herc, then return to the briefing and cancel the single mission. Finally, resume the campaign from the main menu, play the first assigned mission, then save your game. Now, amazingly, when you resume this saved game you'll have access to all Hercs and they'll be decked out and ready for action.

## The Dig

So, what do you get if you combine the game designing skills of LucasArts with the storytelling skills of Steven Spielberg? You get *The Dig*, that's what. The deceptively boring-sounding point 'n' click extravaganza that came very close to fulfilling its promises, but didn't quite manage it. If you've played through this brute, you'll think you've seen it all. But you're wrong. There is, *PC Review* can now reveal, an alternative ending to the game, which you almost certainly won't have come across.

At the end of the game, put the eye part into the slot on the

relic and allow Brink to foolishly kill himself. Now use the eye part with the machine for a second time to get another crystal. It's purpose will soon become apparent. When Maggie dies, which she will do soon after this point, use this second crystal on her to bring her back to life. The rest of the game plays the same, but you get a different scene at the end. Nice one.

Stuck finishing off *The Dig*? Then let our tip complete the puzzle.



## Premier Manager 3

Your phone is in fact a magic phone, and keying in certain numbers opens up a line to a higher intelligence. Try punching in the following for a stash of incredible gifts...



Who needs to fire your manager three days before the start of the season, when you have a magic phone?

945475: Delivers a great big cat-choking wodge of cash  
010870: Gives each player 99 per cent fitness and makes them both left and right-footed  
718143: Gives your team the ultimate assistant manager  
607420: Gives one of your players the ultimate all-round rating of 99

## Raptor

There's a surprising number of cheats hidden in this recent rerelease. Here's the full low-down.

Change the date to 16 May (05/16/95). Now new enemies like a laser-shooting cow and exploding barrels will appear in the game.

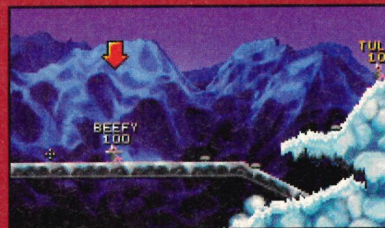
Pressing [Backspace] gives you the Deathray and full energy – but the price for this power-up is the full forfeiture of all your money. ALSO, typing in SET S\_HOST=CASTLE at the DOS prompt before starting your game gives you the Ultima craft, all weapons and loads of cash. AND at the 'Sector' screen type:

Z: To Bravo Sector  
X: To Tango Sector  
Y: To Other Regions  
Then press:  
Q: For level 1  
W: For level 2  
E: For level 3  
R: For level 4  
T: For level 5  
Y: For level 6  
U: For level 7  
I: For level 8  
O: For level 9



## Worms

In case you missed this cheat first time around, here it is again: if you type in BAABAA during a game you'll be awarded infinite Banana Bombs, Sheep and Miniguns. So far so good, but it also transpires that this cheat also does something interesting if you type it in backwards. Once you've entered the first code, fire any weapon and during its flight type in AABAAB, quickly. If you manage to do it quickly and correctly enough, your turn won't be registered, giving you another go. Not bad.

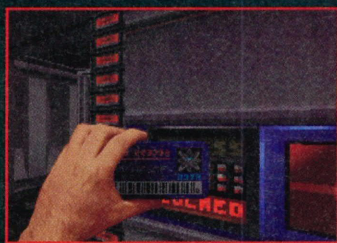


## Duke Nukem 3D

We gave you episode two's secrets last month, so here are episode three's. Makes sense, really.

### Level 1: raw meat

1. After you enter the Japanese restaurant, jump into the invisible wall beside the first ceramic doll.
2. Search the exotic girl poster.
3. Blow up the crack in the last room down the corridor.
4. Search the price list left of the fluorescent BAR sign.
5. In the sushi bar area, touch the bloody hand print and a room around the corner will open.
6. Opposite the bloody hand print, open the cupboard. Then crouch and walk into it, and turning to your left search the wall.
7. In the kitchen, search the cupboard next to the entrance door.



Insufficient funds. Unable to process transaction as requested. Please consult your branch.

### Level 2: bank roll

1. Open the ATM machine in front of the bank.
2. In the blue key area, click the button behind the desk, and the painting will open.
3. Just after you enter the bank, turn right and look up the wall, shoot the button and the telephone will move to expose a door.
4. Outside the secured area, search the painting behind the desk.
5. Get into the Gamma turbine, blow up the red coloured crack in a corner.

### Level 3: Flood Zone

1. Shoot the vines underwater near the waterfall, and enter the cave and swim up.
2. On the platform with the blue key, jump into the invisible wall to your left.
3. After leaving the yellow door, turn right and jump up to the small cave, search the wall at the end.
4. Fly up to the end of the building

facing the Alley Cat

1. Lounge sign. Check the last window to your right.
2. Push the yellow Hard Hat Area sign inside the red door – a crate will open around the left corner.

### Level 4: LA rumble

1. Bomb the crack to your right after you leave the sewer.
2. In the kitchen area with a blue key, check the cupboard below the knife.
3. In the CEO room, check the painting to the right of the red key.

### Level 5: movie set

1. Push the cash register in the start area, then run to the vending machine near the blue key.
2. Jump into the earth screen facing the spaceship set.
3. Search the stack of boxes facing the Stage 17B sign.
4. Jump into the Duke Nukem poster in the open area. Push the USA sign near the yellow key to open the 'Tier Drops' secret level.

### Level 6: rabid transit

1. At the first station, search the Lunar Apocalypse poster.
2. Jump on to the left condom machine facing the train.
3. While you're walking on the track toward the second station, blow up a crack to the right of the Devastator box.
4. At the second station, search the 'No loitering' sign on top of the mailbox.
5. Search the wall in the dark area beside the mailbox.
6. Lower the left shelf in the red door room by jumping from the top of the left shelf to the right one.

### Level 7: fahrenheit

1. In the house near the 'Guilty' sign, search the painting.
2. Blast all the bottles in the same area and jump into the shelf.



Now that looks really sore! A bullet where it hurts in Duke Nukem 3D.

3. Run into the invisible curtain in the KTIT broadcasting station.
4. Open the door in the monitors area in KTIT.

### Level 8: hotel hell

1. Search the wooden wall on the second floor bar.
2. In the same area, search the wine cupboard.
3. Rush into the fountain near the swimming pool. You'll then be immediately teleported to a jungle. Now you have to touch the bloody hand print to meet Doctor Jones and the entrance to the secret 'Freeway' level.

### Level 9: stadium

Shoot the Duf Beer air balloon for lots of goodies.

### Level 10: tier drops

- 1-4. Open the walls between the smaller niches in Alpha, Beta, Gamma and Delta areas.

### Level 11: freeway

1. Go to the right end of the freeway and jump straight up to the left ledge and begin searching the leftmost window.
2. Once you're on the upper freeway, search the window opposite the blue key console.
3. Blow up the crack near the blue key.
4. Search the shelf near the blue key.
5. In the conveyor belt building, jump into the yellow and black chevron sign opposite the Terminator.



**Y**ou're bound to have yourself a copy of shareware Quake by now, and you may even have had a bit of a dabble with some game-altering commands in the console. Here's the full list of those available and if, after extreme experimentation, you arrive at a setup you like, you can save it so you don't have to type the whole lot in again.

To do this, simply enter the required console commands then enter SAVE ?CFG, where ? is a name for that set up. Now you can run Quake with the command EXEC ?CFG and there you are - console commands restored. Also you can make the rapid selection of chosen console commands a reality by typing BIND X ?, where X is the chosen command and ? is the key you would like it to appear on. Now pressing that key activates that command! Have fun.

**GOD:** Enables God mode (invincibility)  
**KILL:** Commit suicide  
**FLY:** Enables 'flying'  
**GIVE 3:** Gives you the double-barrelled shotgun  
**GIVE 4:** Gives you the Nailgun  
**GIVE 5:** Gives you the Perforator  
**GIVE 6:** Gives you the Grenade Launcher  
**GIVE 7:** Gives you the Rocket Launcher  
**GIVE 8:** Gives you the Thunderbolt  
**GIVE S 255:** Max Shotgun ammo  
**GIVE N 255:** Max Nailgun ammo  
**GIVE R 255:** Max grenades/rockets  
**GIVE C 255:** Max cells for Thunderbolt  
**GIVE H 200:** Max health  
**MAP:** Shows map  
**NAME:** Name your player  
**COLOR:** Changes your characters colour  
**NOTARGET:** Renders you untargetable by enemies  
**CD DATA:** Shows CD Data  
**CD EJECT:** Ejects CD  
**CD INFO:** Gives CD drive info  
**CD LOOP:** Continuously plays CD  
**CD PLAY ??:** Where ?? is the chosen track number  
**CD RESET:** Begins to play CD from start  
**CD STOP:** Stops CD play  
**CD RESUME:** Resumes CD play  
**CONNECT:** Used to establish net connection  
**RECONNECT:** As above  
**PING:** Helps you locate Deathmatch opponents  
**RESPAWN:** Enemies regenerate after a while  
**SAY:** Send messages to fellow Deathmatchers  
**SAY TEAM:** Speak to your team only  
**SPAWN:** Create enemies in a net game  
**STATUS:** Shows your status  
**BEGIN:** Starts the game  
**PAUSE:** Pause the game  
**RESTART:** Resume game after pausing  
**QUIT:** Quit the game  
**VID\_DESCRIBEMODE:** Shows the possible video modes on your system  
**VID\_DESCRIBECURRENTMODE:** Shows your current video mode.  
**VID\_MODE1 to 10:** Changes video mode





"A perfectly-sculpted, grotesque, visceral nail-biting extravaganza from start to finish" – page 35.

# QUAKE

If you can complete Quake without our extensive solution, then you're clearly a witch and burning's too good for you. More Quake secrets busted next month.

## Part One

### E2M1: THE INSTALLATION

**1** Near the start of the level, you come to a room with a barricade and a path leading to a huge room with lots of water and a bridge. Walk half-way across the bridge, turn left, and dive in. As you sink, spot the section where the ceiling is lower than the water's surface. Swim to the far corner of the area with the low ceiling, and look up. Swim up the tunnel and help yourself to the red armour.



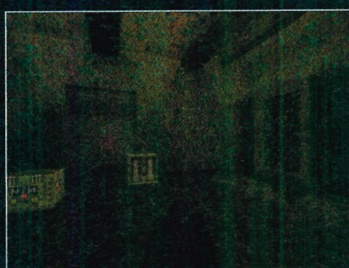
**2** After you get the gold key, a door will open behind you, revealing a baddie who you dismiss. Then jump into the water under that opening, and take the paths to a ramp. Climb the ramp, and you'll be in a secret area.



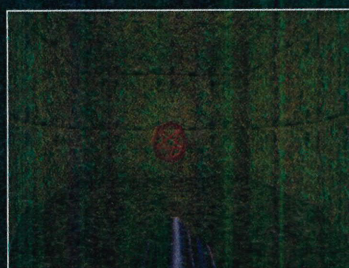
**3** Go back to the room where the gold key was. You'll spot two sets of bars. One set has a small ledge at the top, and a little concealed staircase at its side. Go up the tiny stairs and jump on the ledge. Then just walk through the wall – it's a fake wall. Pick up the 100 health inside.

**4** Go to where you got the silver key, just past the barrier. From that room, go down the stairs, and you'll be at a cross-roads room with a

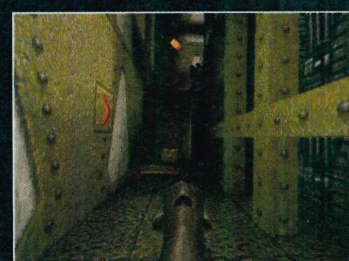
left path, a right path, and some water in the middle. Get in the water and swim down to a grate on the floor. Shoot the grate and get inside it. At the bottom you'll see a path and another grate. Hit the grate several times until you hear a door open (this opens secret number five), and then follow the path. Get the goodies. Don't leave yet.



**5** In the same room you reached in secret 4, there's another hidden room. If you hit the second grate a number of times, it will already be open. If you didn't, go back and hit it. You'll find the Pentagram inside.



**6** This one is in the room with the huge steel cage and boxes inside. Hit the switch on one side of the cage, and it'll allow you to get to a little elevator. Don't take the elevator up yet... just walk right past it. You can shoot the wall to the left of you to reveal a room with a Quad Damage.



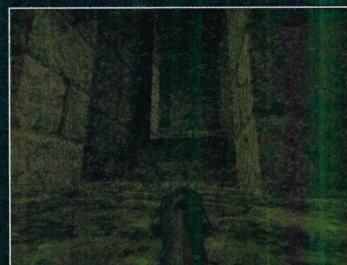
**7** Finally, into the huge cage. Once you're at the top, walking around the top of the cage, you'll spot a section with some bars that are further apart. Squeeze through. Go to the bottom of the cage, and you'll find a yellow armour.



### E2M2: THE OGRE CITADEL

**1** At the beginning, right after you descend the first staircase, splash into the river. Head left and enter the cave. Walk to the back wall and take the lift to a 100 health pack

**2** You've got the 100 health from secret 1. Continue into the water. Exit the tiny room, and go to the left. Keep heading left, along that path, under the bridge until you hit the tiny room on the far wall. Go up the stairs and get the grenade launcher.

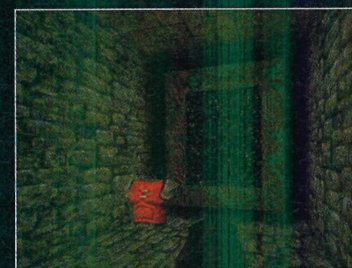


**3** At the end of secret 2, you exit the secret room and enter a hallway. Go a little to your right. On the right wall is a window. You'll see an Ogre across from you. Jump out this window, but stay close to the wall so that you land on the bridge. Follow the bridge, get the armour, and keep going to a health box.

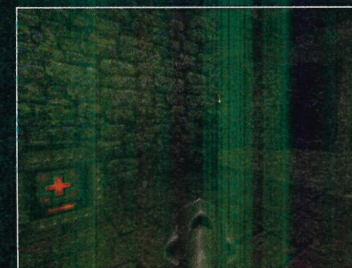


### E2M3: THE CRYPT OF DECAY

**1** You're at the first bridge, with armour and a fork leading to two paths. Side-step off the bridge while facing the armour. Move forward and under the bridge until you see an underwater hallway. Go through this hallway to reach a bigger room. Turn left and go into the room with the arrows pointing to its doorway. Then continue on to the end of the room, and take the first right you see. Go up the stairs, out of the water, and into the secret room.



**2** After you get the gold key, three doors will open to reveal three tiny rooms. Go into the one to your right and shoot the back wall. Surprisingly, it opens. Go in, and pick up the health box. If you jump into the water you'll notice two things – yellow armour, and a barricade. Keep this in mind for later.





**3** The very last intersection of the level has two paths. One leads to the exit, and the other to a room containing five boxes. Go into the room with the boxes. On the ceiling will be a red switch. Shoot it, and a door will open above the middle box. Go through it, get the health box and hit the other switch. It opens the barricade you'll remember from secret 2. Go back to that barricade, pass through it, and head up the ramp. You'll see a teleporter that will take you to this episode's secret level: The Underearth.



**4** Go to the room with arched bridge leading to the gold door. Gib the zombie. When he dies, the wall will open immediately to the left of the gold door. Take it to the zombie's platform and get his goodies.

#### BONUS: THE WELL OF WISHES

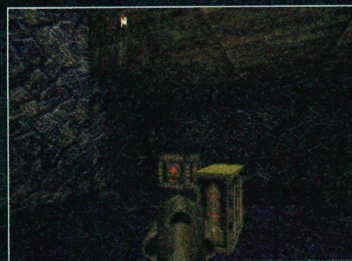
After running through the hallway with spikes and across the bridge, turn around and look to the right. There is a poorly lit ledge containing a Quad damage. Jump to the ledge. If you look really closely there is a tiny ledge. Follow it around until you see a little area you can jump up on to. Jump into the water pit. You're into the well of wishes. Say hello to the DopeFish!



#### E2M4: THE EBON FORTRESS

**1** From the start, hop down into the water, go right and go into the cave entrance on the left. Go through the entrance and into the next room of water. Then take the entrance on the left, turning left after you go through the entrance. You will see a platform with a set of steps in front of you, and dragon flying high above. Go straight on until you hit a wall then turn left. Walk through the passageway until you reach the elevator. Take the elevator up, and then go over the bridge to the next room. Walk down the stairs and turn around to the left, then go into the inlet next to the stairs. Shoot

the wall and it will open to rockets and big life bonus.



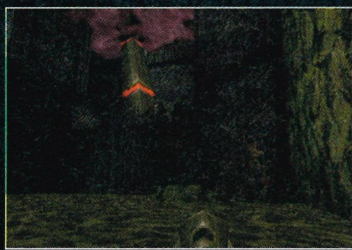
**2** From that secret 1, go up the stairs and then right. You'll find a wooden floor slanted against the wall. Turn right and look at the wall ahead. Shoot the wooden section. It opens and there is a tiny ledge along the wall to the left. Follow it.



**3** In the room containing the silver key, turn right after stepping off the moving platform and go into the gap, where there is toxic slime is under you. Head down and left, to some shiny red armour.



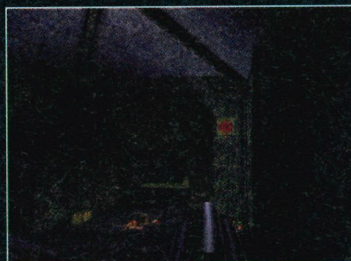
**4** From the start, hop into the water and nudge the wall to the right of the island with the nail gun. You will start to sink into the a secret area containing Quake Damage and Yellow Armour.



#### BONUS

After pressing the button underneath the spiral staircase that takes you up to the nasty Shambler, go back out the Silver Door and look across one of the two windows, on the left or the right. There's a button high up on the wall

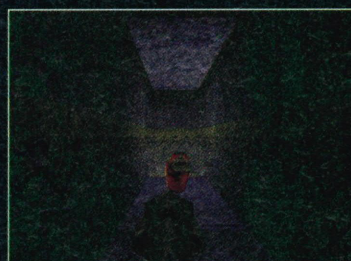
that you can shoot. Head down the rightmost passageway, sticking to the path. At the end of the path there was once a small opening with locked bars on the otherside. It will now be open. Collect the Quad Damage and other power-ups to attack the Shambler.



#### E2M5: THE WIZARD'S MANSE

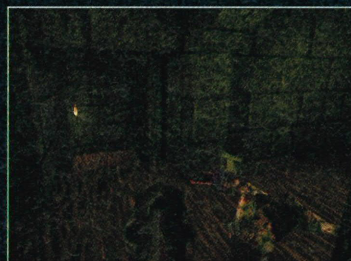
**1** At the beginning is a bridge next to a rock column by it. Jump off the bridge and swim around the rock column. You'll eventually see an opening. Swim inside it, and take the elevator to the secret area.

**2** After getting the gold key, head back the way you came. When you turn right, look to your right again and you will notice that the texture of the wall doesn't changes for a section. Shoot it, then enter to get the Armour and the Quad Damage.



#### E2M6: THE DISMAL OUBLIETTE

**1** On the second floor of the tower, next to the gold key barrier, there's a three-way intersection. Coming from the elevator, the path in front and to your left will take you to some switches. The path behind you will take you back to the elevator. To your right is a wall. Shoot the wall, and go inside. Another secret eats it.

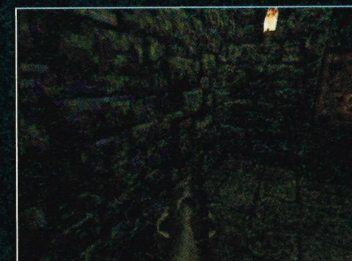


**2** Find the room with water in front of two sniper cages up and above to the right and the left. There's a bar on the opening to the left (after you have gone underwater and into the structure). Open it, then go

through and hop into the water. Head down and turn around under water. Go to the wall, turn and get the goods.

#### E2M7: UNDEREARTH (THE SECRET LEVEL)

**1** To the left of the gold door is a brick sticking out of the wall. Push it in, lowering a column to obtain a Quad Damage.



**2** After going through the gold key door, you will come to a winding bridge over a slime pit. Cross the bridge, and look back across the slime pit. Underneath you'll see a small opening that you can squeeze through. Jump down and head through it. Pick up the Bio-suit. Just as you exit the bio-suit room, you'll see three pillars. Just beyond the 3rd you can dive down below the slime and get a Red Armour. To get out, go back up and use the button on the wall to get out of the floating slime.



#### BONUS

Shoot all the gargoyle faces once. When they have all been shot, go back to the second niche in the long flashing corridor and shoot the wall. It opens to reveal a small room similar to the Dopefish from E2M3. You'll see the initials of designer Tim Willits and his sister Theresa Chasar, along with a Raven Symbol from the Raven Levels of Doom 2 that they made.



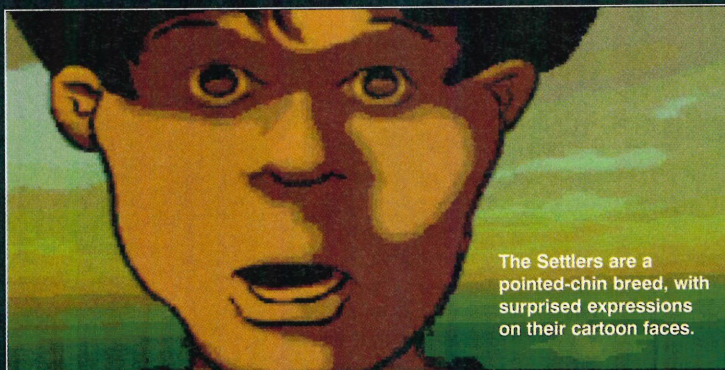
Part two next month

"When a game is as refined as this it's hard to grumble. Settlers 2 is just as cute and complex as its predecessor, but far more polished and generally fun to play. It may be a lot more frivolous than the likes of Civilization 2, but that works in its favour." – PCR 56, June 1996.

# Settlers 2

We left you with a fledgling settlement. Your men have done well, building shelter and securing themselves a regular source of food, but there's still plenty to do yet...

## Part Two



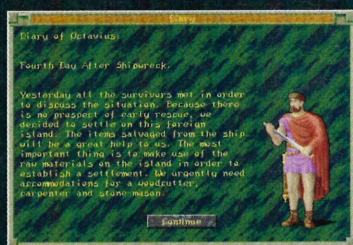
The Settlers are a pointed-chin breed, with surprised expressions on their cartoon faces.



Join us on a mission of discovery in our Settlers solution.

### 1 BY NOW YOU SHOULD HAVE...

You should have 'settled' in quite nicely by now. Last month we showed you the rudiments of getting your settlement set up: building farms to produce food, sinking a well or two to provide a plentiful supply of clean water and working in the mines to produce raw materials for armaments. You should have grouped together related buildings such as woodcutters, foresters and sawmills near to their required natural resources, in this case trees. Everything should be hunky dory and everyone should be having a lovely time. However...



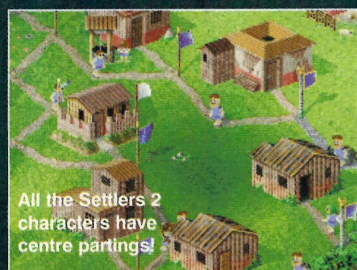
What are you waiting for... you heard the guy. Build houses!



Here we see an early McDonald's – only one arch and it's made from stone!

### 2 THE SWORD FACTORY

The smell of war is in the air and you can't avoid being soiled by it. Last month you began building yourself an army, ready for your first brush with the enemy. This army needs plenty of resources to keep its wheels oiled and swords a-flailing. The main contributor to your army's greatness is the rapid production of quality armaments. Pointed sticks simply won't do, these guys need swords and the good news is that everything you need to produce them is close at hand. The four things you need for a sword factory are mines, an iron smelter, a metal works and a blacksmith. As before, placing these four buildings close together will reap far greater output of finished pointed product than if you dot them about all over the shop. Mines can, though, run out of ore and coal. While switching supplies to another mine isn't a problem it can involve a greater journey for the raw materials, resulting in a drop in output. It's therefore wise to set up your sword-making buildings in a central position: if one mine runs out there'll be another equidistant from it. If you're very lucky, though, you may find a seam that will withstand a group of five or more mines, in which case it's safe to build your blacksmiths and so on nearby.



All the Settlers 2 characters have centre partings!

### 3 MONEY – THE ROUTE OF ALL EVIL

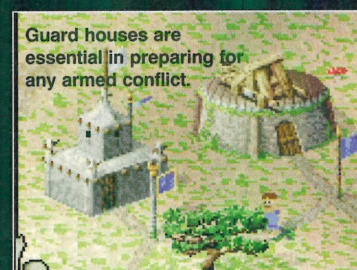
And let's not forget the importance of beer in the war equation. This vital commodity keeps your soldiers fuelled and ready to rage. Make sure your farms are producing enough grain to satisfy the needs of your breweries so your army has a plentiful supply of the lovely stuff. All they need is food, beer and weapons, oh, and money. Gold is an essential part of training your troops. Make sure you mine enough of the stuff to pay for the training of a decent-sized band of captains, the more the merrier. Before too long your soldiers will be trained up, they'll have a ready supply of the 'big three' commodities and will be itching for a spot of combat.



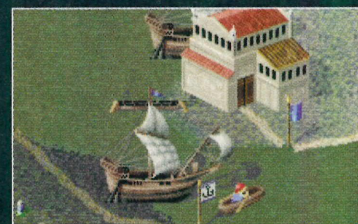
Having a busy, thriving colony is of course the best route to moolah!

### 4 ZULUS! 'FOUSANDS OF 'EM!

If you've done well your settlement will be a thriving, ever-expanding city, teaming with life. Your people should be wanting for nothing before any armed unpleasantness is required. Find yourself involved in a war too soon and your settlement will go under as you simply try to do too many things at once. There's a lot to be said for avoiding conflict for as long as is



humanly possible – it only makes you stronger for when the conflict occurs. Eventually the time will be right for war. You'll be short of space around your original fort and exploration into the surrounding area may have turned up signs of life. Build guardhouses as close to the newly-discovered enemy and place in them as many of your captains as you think you can spare. These buildings enable your troops to remain on the scene of the action while you build up your forces. When you've enough military might in the neighbourhood, take the ultimate military step and build yourself another fortress from which you lead your attack on your (hopefully still) unsuspecting foe, right on his doorstep. Once built he's going to have a hell of a job shifting you.



Rowing boats will do for landings, but it's sails for long-haul travel.

**5 SNEAK THIEVES**

A curious feature of *Settlers 2* and one which you can use to great advantage, is the fact that your enemy only seems to get enraged at the sight of other soldiers. Your woodcutters, hunters, quarrymen and all other Settler type citizens are free to wander cultural borders at will without fear of recrimination. This bizarre turn of events means that you are able to 'steal' stuff from right under your enemies nose without them lifting a finger. Go on, try it. Regardless of how sizeable the military might in the area is, so long as you don't send in soldiers you can pinch as much raw materials as you like from within their borders. Either they're very kind, or very stupid.



Looking to 'acquire' some dodgy kit? Simply send in the workers!

**6 PICK YOUR TARGET**

So, the time has come to step out from your defences and attack. There are many ways to attack, but the cleverest involves inflicting the maximum damage for the minimum casualties. Steps should be taken to avoid excessive unnecessary bloodshed on your part at all times. Attacking is complicated by the fact that often the same attack produces many different alternative outcomes. Rather like the break in snooker you can choose to strike the same point, but the balls

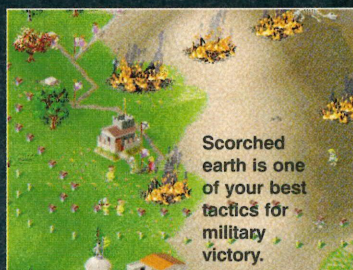


Remember to save your game after every successful battle.

always end up in different places. For this reason, it's a good idea to cheat slightly and save your game after each successful attack. Also, (if we may use that snooker analogy just once more) strike at one specific target at once to maximise the impact there. Spread your forces too thin across your front line and you might as well not bother attacking at all. Pick yourself a target and give it your all.

**7 STAY OUT OF TROUBLE**

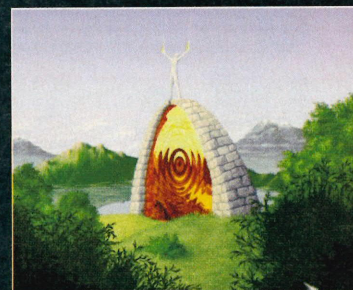
More often than not, going for an opponent's armed forces in combat is in fact a bad idea. Why risk your soldiers by attacking an aggressive target, when they can do far more damage by attacking your enemy's resources? The route to victory is to destroy farms, mills and storage facilities, all of which keep front line troops going. A weakened army is a push-over compared with a fighting fit one. Of course, when under attack yourself, there's nothing to it but to take the bull by the horns and attack your aggressors. It's a good idea to have some unused soldiers in back up. The more forces you can pile on to a single target the quicker and more successful the outcome. You can check out the military strength of a potential target on the statistics screen, before committing yourself to an attack. If anything looks like it's going to put up too much of a fight, pick a weak target. Or hold off until you have the available forces to mount an attack on this strong point without fear of an attack elsewhere.



Scorched earth is one of your best tactics for military victory.

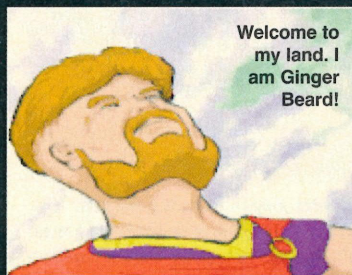
**8 JUMP AT THE CHANCE**

The end of a level, and a chance to begin again in pastures new (which in time will also reveal themselves to be hiding places for bloodthirsty natives) is reached when you locate that level's jump gate. This may be done without destroying all of your enemies strongholds. The castle can be a tricky and time-consuming building to destroy, so try to avoid having to do so. Learn from your opponent's strategy of



The stone age McDonalds - aka the jump gate - is open for business!

replacing guardhouses with guard towers. These far more resilient buildings are often found surrounding a central castle. However, they are infinitely weaker than the castle, and in many cases, systematically destroying the barracks, guardhouses and guardtowers around the castle will be enough to earn you the jump gate, leaving the heavily fortified castle unscathed in the midst of all this destruction.



Welcome to my land. I am Ginger Beard!



One day son, all this will be yours...

**9 TONIC FOR THE TROOPS**

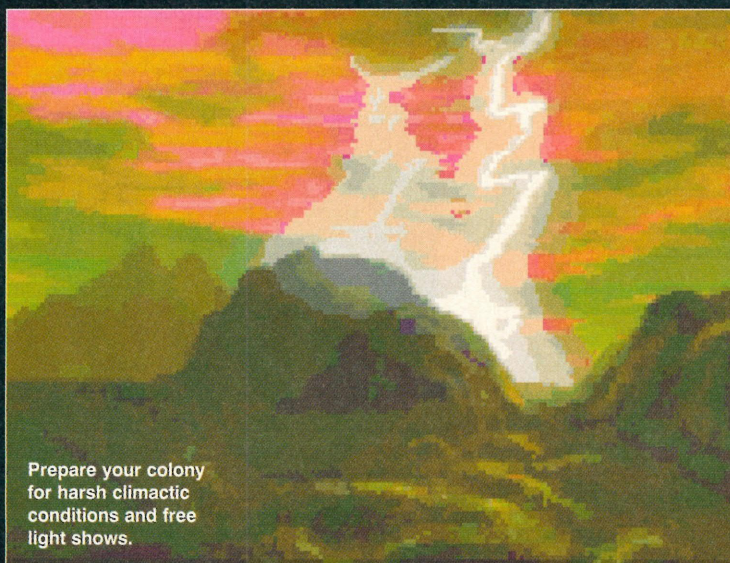
Of course, all this military might storming your enemies' lowlands is useless unless you can feed them regular supplies. For example, while encamping them on the border, try to amass necessities gold, iron, coal, water and beer. You then have to transport these resources to your armies via an adequate road system - the most direct route is always the best - and a donkey! Kit yourself out with one of the latter as soon as you can. Alternatively, if you're fighting further afield it's a good idea to build shipyards and harbours so you can bring in supplies more quickly by boat. It may sound like a headache now, but it'll be worth it in the long run. And that's your lot. Position your related buildings next to each other, stockpile plenty of stuff for a rainy day, don't go rushing headlong into battle and you won't go far wrong. Good luck!



The pigs are your friends. Until dinner time, that is!



Build up the castle good and strong.



Prepare your colony for harsh climactic conditions and free light shows.

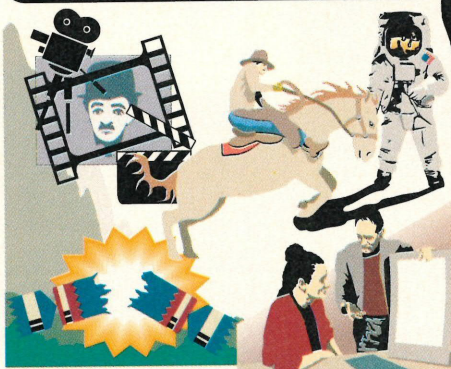
**NEXT MONTH**

We bring you Part Two of our Quake solution, and the first half of our walkthrough to The Gene Machine. Plus all our regular hints and tips for your favourite games.

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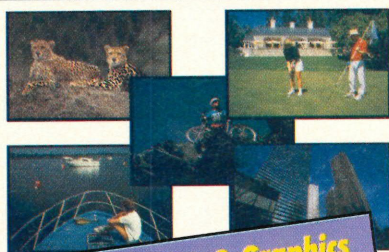
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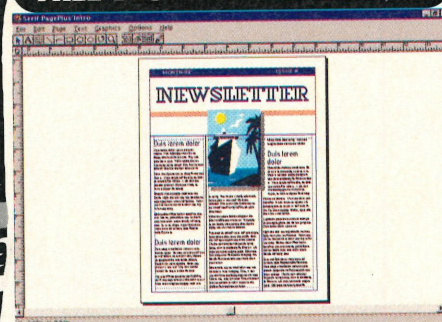
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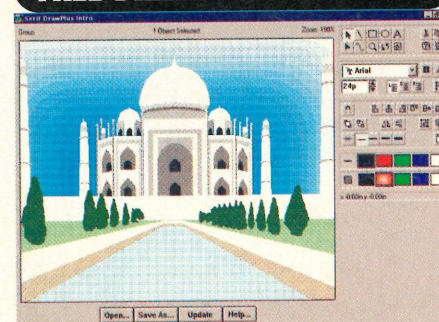
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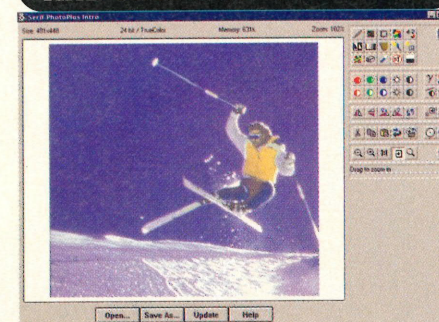
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PICTURE**

★ Home cinema for your PC ★

Your PC can play movies and music and, as we all know, it's a great platform for games. Despite all this potential, the PC is still having a hard time making the migration from the desktop into the living room.

But it can be done. If you really want to, you can make your PC sit among the TVs, VCRs and stereos that inhabit the space in front of your sofa. In fact, your PC can even be integrated with a home cinema outfit.

Whether or not it will feel comfortable there is another story. We investigate what moving your PC into your living room will do for your home entertainment outfit.



# WELCOME TO OUR HOUSE

Here's how we took one of our PCs into the living room and made it part of our home cinema outfit. Take a look at all the kit we assembled...



**T**he sense of satisfaction is immense. You're sitting in your living room playing *Quake* on a screen twice the size of your normal monitor. The sound booming forth from your big stereo speakers is, quite literally, monster. At long last, your PC has migrated to your living room and you're reaping the benefits.

For two or three years now home computing pundits have predicted the integration of hi fi, television, gaming, video and computing equipment. While no system is currently available that seamlessly melds all the components, it is now possible to wire everything together in an acceptable system

in which your PC can demonstrate many of its capabilities to the full.

So, here's what you gotta do. First of all, you'll want to connect your PC's video output to your television, which probably has a larger screen than your monitor. To achieve this, you'll need a PC-TV Converter like the one sold by Quantum Leap for £150. It can display screen resolutions up to 800 x 600 pixels on your television. Of course, there are a few drawbacks.

#### Big action, slight degradation

Firstly, there's a degradation in picture quality meaning you won't, for instance, be able to work in Windows on your TV. This is

mainly because it's very hard to read the text. On the other hand, the picture is better if your TV can take an S-Video feed. Games look fine and the action is absolutely gripping on a 25- or 30-inch screen. *Quake* (with an in-game resolution of 360 x 480) is bafflingly absorbing, and you won't notice the slight break-up of the picture when you're sitting back in a living room chair.

If you're thinking of buying a big monitor, think again. A new 21-inch monitor costs about £1,250 if you're lucky. A 29-inch Sony TV with Trinitron screen and Pro Logic sound costs around £850. Add the £150 PC-TV Converter and you're still getting a huge picture, good quality sound and the ability to



**1** The key ingredient is a large screen TV, hopefully with Dolby Surround or Pro Logic sound built in. You can get one from most high street electronics stores like Comet and Dixons. A 29-inch TV with Pro Logic sound starts at around £850. Go for the huge 33-inch Toshiba and you'll be looking at £1,450 – and one helluva big screen too.

**2** At the very least, you'll want to plug the output from your PC into your stereo amp. Games and music applications sound much, much better through an amp and speakers. Better yet, your television might come with five channel Pro Logic capability built in. In that case, you'll have surround sound for when you're watching VideoCDs. In the future we could see increasing numbers of games published with surround sound tracks. Then you'll hear the real advantages of the system.

**3** Small but essential, the PC-TV Converter simply takes your PC's display output and converts it into a composite video signal that can be shown on your TV. This PC-TV Converter is available from Quantum Leap for £150. More advanced models, such as the Multigen from Vine Micros, enable you to overlay text and graphics on to video from your camcorder. You could become a home video supremo.

**4** Old faithful – the PC. Our model, like most, still looks very out of place in the living room. It's boxy, big, the wrong colour and the wrong shape to fit in with the other kit. But things are changing. Olivetti recently introduced the Envision, which plugs straight into a television and is designed to sit well with TVs, videos and stereo equipment. Unfortunately it comes at a relatively high price for a 75MHz Pentium without a monitor.

**5** If anything brings PC gaming into the living room it will be the Microsoft SideWinder joystick. Following the success of the joystick of the same name, this pad has six programmable buttons which means it can do away with most of the keypresses involved in games like *Quake*. Hence, no need to sit with a keyboard on your lap. What's more, four of them can be daisy-chained together for multiplayer action on the same screen. The SideWinder will cost £39.99 and goes on sale in October.

**6** Moving your PC into your living room is all well and good, but what are you going to do with it once it gets there? Use it as a coffee table? We think not. No, you're going to want to play games and take full advantage of the big screen. *Quake*, currently our game of choice (if you hadn't noticed) utterly erupts when played on a TV. *TIE Fighter*, *Doom 2* and even some graphic adventures look great too. You should, however, avoid anything with text in it. You can hardly read PC text on a TV screen.

**7** MPEG hardware. Until recently to play VideoCDs through your PC you would have had to fit an MPEG card inside the PC. Progress, however, has pretty much consigned such hardware to the dustbin. To begin with, several new and all-powerful 3D graphics cards now come with MPEG capability either built into them, or built into their driver software. Secondly, software MPEG players are now on the market which cut out the need for an MPEG card.

**8** Some people say VideoCDs are a dodo medium for video, but you'd probably be surprised just how many films are coming out on VideoCD. Certainly all the blockbusters make it. Anyway, to complete your PC-centric home entertainment kit you'll want stacks of these to watch. The video quality of the latest VideoCD releases is as good as VHS, most have Dolby Surround sound and they don't degrade in quality over time. On the other hand, you can't record VideoCDs. Yet.

watch TV for a grand. But, of course, you can't really do the paper work using a TV screen. Too bad, eh?

Now you might be wondering how we managed to play *Quake* in the living room. After all, playing with a keyboard on your knees and the mouse balanced on the armrest of your chair is next to impossible, and sitting with a joystick in your lap is a rather uncomfortable and embarrassing thing to do.

To remedy the clumsiness of the PC's control devices when they entered the living room, we grabbed ourselves Microsoft's brand new SideWinder gamepad. With its six buttons programmed for *Quake* functions the

game's as easy to play from the sofa as any Playstation title.

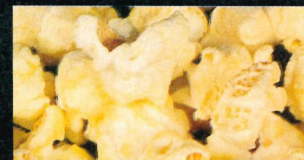
### Bring the noise

While playing *Quake* on the big screen we had the sound running through a stereo amp with a pair of big speakers. Needless to say, the noise was humungous. Other games sound even better when hooked into a big stereo. *TIE Fighter*, with its use of side-to-side sound movement as the ships cross your path, is an excellent example. It's amazing how they did that, especially as sound doesn't travel in space.

Even if you don't use your TV as a display device for games, it's definitely

worthwhile putting the audio through the amp and speakers on your stereo. Proper speakers add far more depth to the sound than the desktop variety. The benefit isn't just for gamers. Listen to ambient music authored in *Koan Pro* with a Sound Blaster AWE32 soundcard coming through a decent amplifier and stereo speakers and you'll see what we mean. The room is filled with computer-generated atmosphere.

Games and sound software are just the beginning. Let's talk about movies. These days PCs are also capable of playing VideoCDs which contain video encoded to the MPEG-1 (Motion Pictures Expert Group 1) standard using the CD-ROM drive. ►



The Olivetti Envision looks like another modular piece of home entertainment electronics, but it's actually a P75 PC. A bit under-powered and a bit costly, but also a step in the right direction if you want a PC in your living room.



Unfortunately, at present your PC won't be able to play them. Not without help, that is.

#### MPEG: hardware v software

What you need is something capable of decoding MPEG standard data. Firstly there are MPEG cards like Realmagic and the Video Galaxy Oscar Pro. These enable you to view Video CDs but cost upwards of £150. Still, some MPEG boards kill two proverbial birds with one printed circuit board by including 16-bit sound hardware. The Video Galaxy Oscar, meanwhile, cuts out the need for PC-TV Converter by including VHS output at the

back of the board. This card can be plugged directly into your TV but only for VideoCD viewing purposes. You can't use Windows or play normal PC games through it.

But you probably won't want to buy an MPEG board anymore for two reasons. Firstly, several of the newer graphics accelerator cards make MPEG possible through smaller add-on boards. Both the Diamond Stealth 3000 and GraphixStar400 support MPEG add-ons. So, when you upgrade your video card it could very well come with MPEG support as an option. Secondly, MPEG playback through software is now possible. The XingMPEG Player, for instance, is much cheaper than an MPEG board but will play VideoCDs on your PC.

New graphics cards like the ATI 3D Xpression

actually come with MPEG capability built into the card's driver software. Whatever MPEG solution you choose, make sure you have a graphics card with vertical and horizontal interpolation. This prevents the pictures from appearing too blocky.

Once again, you can hook your PC up to your TV for a fuller home cinema effect. As with games, you'll experience a slight loss of quality as the signal is converted to PAL. If, however, you have a TV with Dolby Surround (three channels - left, right and middle) or Pro Logic (five channels - left, right, middle, left rear and right rear) and the VideoCD's audio is encoded either standard (most movies are) then you'll be able to enjoy the surround sound effect just as you would with a new video in your VCR.

#### The bottom line

So is it worth integrating your PC with your home cinema kit? Well, that all depends on what you want out of it. If you already have a big TV and love games, it's certainly worth getting the £150 PC-TV Converter for larger action and booming sound. It would be

ludicrous, however, to buy a £1,400 Toshiba 33-inch TV with Pro Logic sound just to watch VideoCDs. Playing VideoCDs with MPEG playback software requires a fast processor. We're talking a 100MHz Pentium or better to overcome frame loss and pixellation; even faster if you want proper lip synching. Most MPEG cards, meanwhile, don't surpass VHS for quality and besides, you can't record to VideoCD.

Things might not be great, but they're getting there. The arrival of Digital Video Discs (DVD) could be one instigator of change. This new compact disc standard will



Above is the Multigen Genlock. At £300, it will convert your PC's video out to composite or S-Video, but it also enables you to overlay text onto video from your camcorder. Below, and much cheaper at £150, is the PC-TV Converter. It's all you need if you just want to play PC games on your TV.

The Microsoft SideWinder joy pad could almost single-handedly help PC gaming break into the living room.





## Digital Video Disc – the future of everything

The on-coming technology for both home cinema and PC fans is DVD. The first DVD discs to arrive will be capable of holding 4.7Gb of data, or 133 minutes of MPEG-2 standard video with Dolby Surround (three-channel) sound. Later on, double layer versions – containing two layers of data and hence double the capacity – may be introduced.

The secret of DVD is in new blue laser technology. Current CD players and CD-ROM drives employ red lasers. Blue lasers have narrower beams of a higher frequency and thus scan along narrower tracks on the CD. Narrower tracks means more data. Furthermore, DVD discs will run at ten times the rate of a normal CD player.

With DVD you won't have to worry about your existing CDs, CD-ROMs and

VideoCDs becoming redundant. The companies developing the DVD medium promise backward compatibility with the contemporary standard.

Philips is leading the way and has already built prototype DVD players, but don't expect a massive uptake of DVDs from the off. The first players will probably be available next Autumn but the company expects it will take a while before the main content providers, and Hollywood in particular, embrace the

idea and start publishing big releases to DVD instead of VHS.

For their part, the studios are worried about the pirating of movies using DVD. By the end of the Century, Philips expects DVD players to comprise 10 per cent of the total number of CD players in the world. At that time, home players capable of recording as well as playback may be available.



This is the Philips prototype DVD player. You may be able to buy one next Christmas.

mean discs capable of holding 4.7Gb of data, or 133 minutes of the new, improved MPEG-2 digital video with three channels of audio. When devoted to sound, it will be able to carry eight digital channels. It seems only sensible that when DVD players come on to the market you should be able to hook them up to your stereo, your TV and your PC all at once to take advantage of the three applications they promise. After all, why should you have a monitor and DVD player hooked up to your PC in one room and a big TV and another DVD player plugged into your stereo-cinema outfit in another? The logical answer is to roll everything into one.

### The big plan for tomorrow

What's also needed is a strategy to combine the PC with other forms of home entertainment. The PC industry and home electronics forces should work towards solutions for people who want to make the PC a part of

the living room. Perhaps, the answer is to design PCs so that they fit in with the rest of the kit in modular fashion. Furthermore, PC video hardware should come with built-in TV output as standard. The advent of high definition television will almost certainly mean a clearer picture and thus the ability to work in Windows on a TV screen.

Add the Internet to the equation and things should get even brighter. Already, MPEG files that just beg to be played on a big screen are available on the Net. With cable service spreading, not only will you get all the satellite channels but also cheaper, faster downloads through your modem. As an increasing amount of Net entertainment could be so much better on bigger screens, all the more reason to make the PC a more comfortable part of the home entertainment set-up. We demand a better way. But for now we'll just keep playing *Quake* on the big screen. (GW)

## Playing with Dolby Surround

The big sound of the cinema is gradually making its way into gaming. Both *Wing Commander 3* and *4* had Dolby Surround sound, as will EA's next interactive movie, *The Darkening*. Ocean and Psygnosis also plan to produce surround sound games.

To benefit from the superior audio in games, however, you'll want to have a sound system that can deliver Dolby Surround through three channels. Your best bet is to route the audio out either through a TV with Dolby Pro Logic (which goes up to five channels) or through a Pro Logic amplifier.

## CONTACTS

ATI 01235 833666  
Aztech for Oscar Pro  
01734 814121  
CD Vision for VideoCDs  
0181 703 0589  
Diamond 01753 501400  
GEM for Realmagic  
01279 822800  
Philips for VideoCDs  
01604 769945  
Quantum Leap 01506 461917  
Video Logic for GraphixStar  
01923 260511  
XING 01635 873000

## Our five favourite VideoCDs

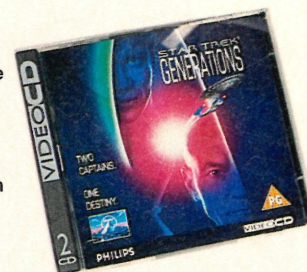
A main complaint about VideoCD is that most films appear on VHS long before they come to VideoCD. What's more, you can't record on them and they aren't big enough to accommodate a whole feature film. This means you have to change discs in the middle of most movies.

While all this can't be denied, Philips, the main backer of the standard, continues to publish VideoCDs and the catalogue is now quite sizable. The quality is usually good if you have the right hardware and/or software for playback. Here are five of our favourites.

This gals-on-the-road blockbuster starring Geena Davis and Susan Sarandon is probably the finest action-drama available on VideoCD. Directed by Brit-in-exile Ridley Scott, it examines the difficulties of contemporary feminism in a world of handguns, fast cars and the likes of randy Bradd Pitt. (Philips)



It had to be. The entire collection of Star Trek feature films has come to VideoCD. Naturally, titles like *The Search for Spock*, *The Final Frontier* and *The Undiscovered Country* are on the hit list, in addition to episodes from *Voyager* and *Deep Space Nine*. (Philips)



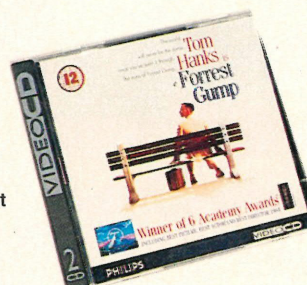
Now here's something a little different. *Akira* is the quintessential Japanese manga movie and has been out on VideoCD for the past six months or so. With less insect rape and more motorcycles than many of its unhinged peers, it's a must see for any adult animation fetishist. (CD Vision)



They lost the battle of Brit pop, but they won the war. And that gives them the right to appear on VideoCD. *Live by the Sea* by Oasis is our top choice music disc. We say watching this in your home is definitely preferable to joining maybe 150,000 cropped and anoraked yooofs at Knebworth. (Philips)



The sentimental tearjerker with Tom Hanks playing a dim-witted but principled American is probably the best known film to arrive on VideoCD so far. Don't miss the Oscar winning special effects. It's easy to forget that the Gumpster never really hobknobbed with John F. Kennedy and co. (Philips)



# PC ANSWERS

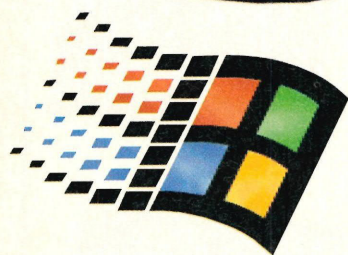
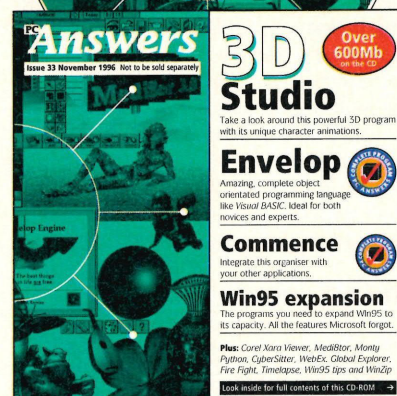
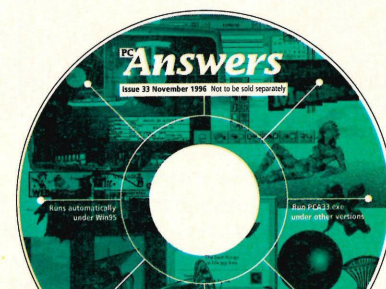
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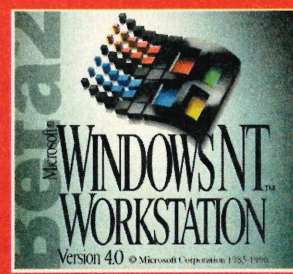
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### WinNT 4.0

A close look at Microsoft's new version of WinNT which completes its set of PC operating systems



## MULTI-MEDIA



The whole idea of your PC being able to simulate the entire workings of a truly living organism is an intriguing one. Make that organism a pet, for instance, and you could bring all the pleasure of owning a dog, cat or gerbil to your PC without the mess and without the added costs of food and vet bills. And, of course, when that pet gets a little rambunctious, you can just turn off your PC. Easy.

This month we review a disc that actually does offer you the opportunity to keep artificial life critters in your PC. It's called *Creatures*, and starting just to the left here is our exclusive review.

If a-life isn't your bag, also in our grab bag are two cinema discs, one on dinosaurs and the revamped version of Stephen Hawking's *Brief History of Time*.

Garrick Webster  
Deputy editor  
gwebster@futurenet.co.uk

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# CREATURES

Two months ago we brought you news of *Creatures*. Now we can bring you the exclusive review of the finished disc...

**M**erle's in the submarine heading for home. He's hungry. Tammy and Lyle have successfully produced little baby Hank and they're teaching him to speak. Silly old Faye, though. She's spent nearly all of her three-hour lifespan playing in the vegetable garden.

Sounds a bit like a soap opera, doesn't it? What we're actually talking about, however, is the lives of our new pets. They belong to a new species of furry animal called norns. You won't be able to buy a norn in a pet store, though, and they

certainly can't be caught in the wild. Norns, you see, only exist in digital form.

To get yourself some Norns therefore, you have to buy *Creatures*, the artificial life CD by Millennium Interactive. Sure, you've probably seen *Dogz* and *Catz* and thought they were cute-but-lifelike desktop diversions. With *Creatures*, however, you're getting something far more serious about its pretension to simulate actual life. Norns don't live by any preset list of rules like the puppies in *Dogz*. Instead, they are designed to go out and learn things on their own.

Within each norn is a complex biochemical system that includes a neural network brain, sensory organs, an internal bloodstream and DNA.

## Get a life

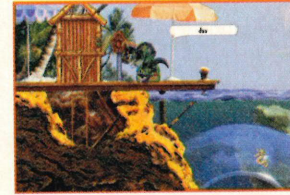
Now, all this may not be that interesting. What is, however, are the results. Like real animals, your norns will quite happily get on with their own lives if you let them. They'll walk around and explore, learning how to use the lifts in the vivarium. They need to eat carrots, lemons, tomatoes and honey. If they



The incubator is necessary for hatching your first generation of eggs, which come on a diskette.



The beehive is an ever-replenishing source of honey for your norns. They eat it to maintain their energy levels. The pride you feel when they finally figure this out is quite disturbing.



The ugly Grendels will punch your norns, and can seriously shorten their lifespans.

## CREATURE COUNTRY

When PC Review played with *Creatures*, we decided to name all our norns after country singers. The first generation, hatched from the eggs disk provided with the CD-ROM, consisted of Tammy, Johnny, Merle and Dolly. Tammy remained barren for a long time, but Dolly and Johnny begat Faye.

When Faye came of age, Merle went to her nest and before long, little Lyle was hatched. Lyle didn't stay little for long, and actually grew to be a great explorer. Tempting Tammy away with him, he founded a colony in the far Western end of the vivarium. Tammy's stretch of infertility ended with the birth of Hank.

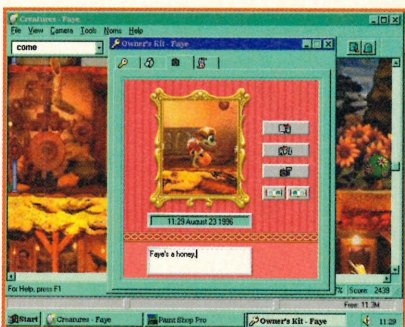
Merle passed on to the afterlife, but Hank grew strong, and in the way of his father he entertained a wandering spirit. Before long he was comforting the widowed Faye. Unbeknownst to him, she was his grandmother but despite the sin, the norn god gave to them Scarlet.

Tammy grew tired of Lyle's lift riding hobby, and wandered back to the main group. After a long middle-aged courtship, she and Johnny produced the young Willy. Shortly thereafter, in a touching moment, they expired together, leaving young Willy witless and lonely.

Were it not for the roving pre-delictions of Scarlet, Willy may never have found his way to the carrot patch to eat. When Willy grew up, he and his saviour Scarlet begat KD. She is the hope of the new generation.



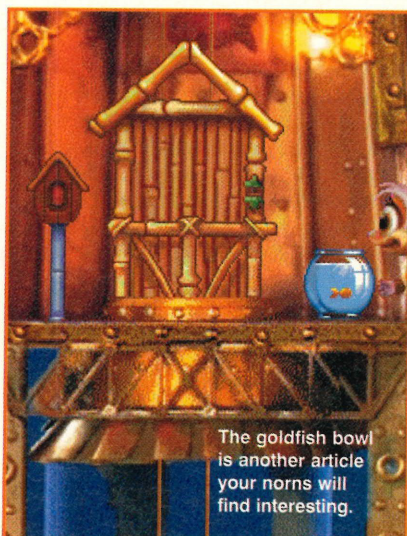
When a norn is hatched, you name the nipper and register the birth. Thus, you are presented with a birth certificate.



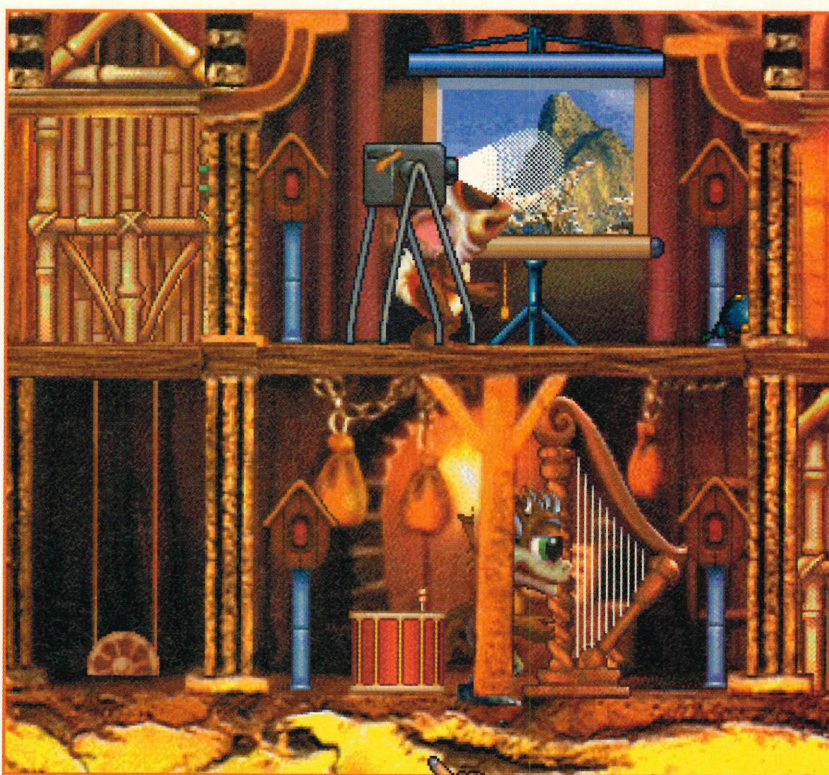
The over-cuteness of *Creatures* is captured forever in the photo album.

▶ don't eat, or if they get sick, they'll die. Like living things, they seek pleasure by playing with toys. And, of course, they need to breed.

Able as they are to get on with things by themselves, it's always more fun if you interact with the norns. This is conducted using an on-screen, mouse-controlled hand. Norns can be rewarded for their behaviour with a scratch on the head, or chastised with a slap on the rump. In this way they can be taught how to look after themselves. If a young norn eats a carrot a tickle on the head will reinforce the idea that it was a good action. But if a Norn is wasting his or her life riding up and down in a lift instead of finding food, perhaps that individual needs a whack to stamp out such regressive behaviour. Either way, the norn's neural network brain should learn the connections. It is, of course, entirely possible to reduce a norn to a feeble



The goldfish bowl is another article your norns will find interesting.



Tammy is fascinated by the slide projector while her musically-talented mate, Lyle, lovingly serenades her with a harp. Sweet.

and neurotic state by punishing it for everything it does – if you're a sadist, that is.

On the other hand, you can teach your norns simple words using the speech bubble tool. By mimicking what you tell them, they can learn simple nouns like 'carrot', 'ball' and 'egg'. In addition, there is a language machine quite near to the incubator where your first norns will hatch. If you coax them into approaching the machine they can then learn verbs including 'come', 'push', 'pull' and 'run'.

## Turkeys and molluscs

Just like dogs, apes, turkeys and molluscs, a norn's aim is to procreate. Within their chemical make-up are hormones which not only guide their growth but bring them to sexual maturity. When that happens, male and female norns will get together. They rub noses, and walk backwards and forwards

facing one another. They start kissing and sooner or later, when they're very up close and personal, you hear a big, puckered-up slapping kiss. This is how they copulate. If fertility levels are high enough, the little lady will get pregnant, eventually to lay an egg.

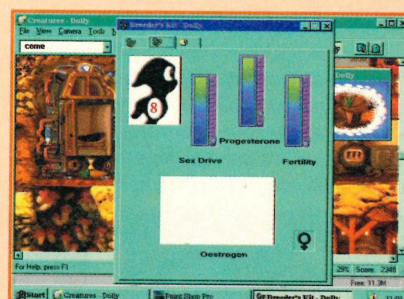
Being the owner of norns, however, is far from easy. In fact, it's downright frustrating in the beginning. Just as dogs chase their tails and cats never come when they're called, norns develop strange obsessions. Some will pick carrots in the garden and wave them around in a strange homage to the vegetable god. Others ride the lifts incessantly – extremely annoying. More understandable, though just as stupid, is the norn who just wants to bounce the ball.

Breaking norns out of these patterns is arduous – a firm hand is required. If you can encourage your norns to both explore their world and keep themselves well fed and

## She's having a baby



**1** Norn copulation is preceded by lots of kissing, a strange dance and some nose rubbing. The actual transference of genetic material is signalled by an extra loud kiss.



**2** To find out if a female norn is carrying an egg, you can easily check her state in the breeder's kit, with a kind of pregnancy testing kit. If you see a number in her belly a little 'un's on its way.



## How the norns get around



One way the norns can cross their little world is by cable car. Note the humming birds hovering just to the left of the cab.



Deep down in the sewers, Lyle has to use a floating ferry to get from one end to the other. Some norns are quite shy about using this particular device.



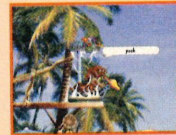
By far the most interesting mode of transportation in *Creatures* is this mini submarine. Here's Hank taking a journey through fish land.



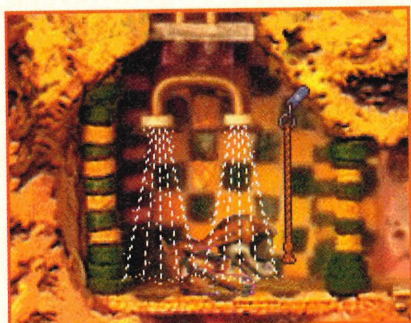
The most common form of locomotion, your norns will be using the lifts a lot from the moment they're born. Watch them, though: some norns get addicted.



To save energy, in some locations there are little mining carts. Here we see a young norn carting it through some underwater tunnel.



And finally, the teleporter. Push the button and the norn is spirited away to another location on the other side of the vivarium.

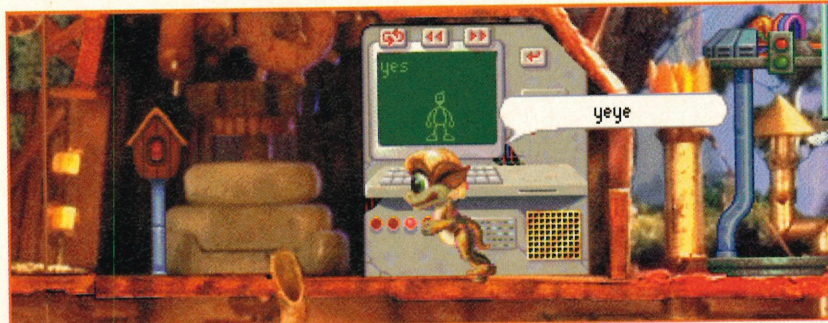


Down in the basement there's a shower. Not that the norns need to bathe, but they like it.

healthy, however, then *Creatures* begins to feel rewarding. Sometimes norns will get stuck in a corner somewhere and you'll guide them back to the areas of the world they know. In other instances they'll get ill, so you'll have to give them herbal cures. And finally, there are the grendels. These ugly old beasts can injure and even kill a norn, so it's best if you help your norns avoid them.

Gradually, as you nurture and protect your norns, you may grow to care about them. They might not be tangible or directly responsive to you like a flesh-and-blood pet, but there's a good chance you'll start to think of them as living things.

In order to check up on them, four special kits are provided. In the health kit, for instance, you can monitor a norn's temperature, and levels of hunger, boredom, pain, sleepiness and exhaustion. Meanwhile, the science kit is more comprehensive, with



Young norns can learn to speak using the talking computer. Eventually, though, your norns will be teaching one another new words by themselves.

graphs of internal chemical levels, a brain-use monitor and a tool for injecting norns with energy, pain killers, sleeping pills and so on. Then there's the breeding kit. Here you can check their fertility, sex drive and hormone levels. This is where to look if you suspect a female is pregnant. Lastly there's the owner's kit where you keep snapshots and birth records.

### Too damned sweet

There is one problem. The squeaky noises they make, the way they blink their eyes, their meek little expressions – all just too damned sweet. They show nothing of the aggression real living things need in the cruel world this side of the screen. Dogs and cats at least bite and scratch. These wimps just cower and squeal.

In many ways, though, *Creatures* is like *Theme Park* or *Sim City 2000*. You work away

at developing everything to a stage where the system is self-supporting. Then you can sit back with a feeling of accomplishment and watch it successfully develop. In *Theme Park*, you measure your success in dollars; in *Creatures*, you count your norns, see new generations born, teach the young, observe them breeding and bury the dead in the norn graveyard.

While *Creatures* is undoubtedly a product for people with great patience, it is immensely interesting and compelling. If you can manage to get over early difficulties it will exert a grip on you like no other multimedia disc. The satisfaction you feel is immense when an organically bred egg hatches and the youngster stumbles off to nourish itself with carrots, lemons, honey and herbs. If you have a real interest in artificial life, you must get *Creatures*. It really is a fascinating disc. (GW)

### NEXT MONTH

If you decide to buy *Creatures*, look for future issues of *PC Review*. We plan to carry new norn eggs on the disc. In addition, we may bring you new herbs, foods, toys and other objects that you'll be able to import into the *Creatures* vivarium and which your norns will be able to interact with.

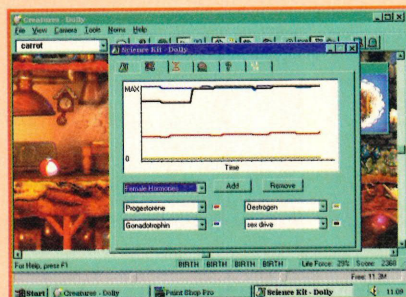
### CD REVIEW

For a video of *Creatures*, introduced by our deputy editor, see this month's disc.

**DEVELOPER**  
Millennium Interactive  
**PUBLISHER**  
Time Warner  
**CONTACT**  
0171 391 4300  
**PRICE**  
£34.99  
**MINIMUM SYSTEM**  
Pentium, 8Mb RAM,  
35Mb hard disk space,  
double speed CD drive

**PC REVIEW VERDICT**  
They require patience, but norns are the best digital pets you can get for your PC. Fascinating.

9



3 Another way of playing doctor is by using the science kit. Shown above is a graph of the female sex hormones. The gondatrophin is right up there, so she must be pregnant.



4 Eventually, the lady will drop an egg. Initially, the egg will be small. If undisturbed, it will grow and eventually hatch. On the other hand, move it and you'll have to put it in the incubator.



5 And here we see the happy family. It's usually best for youngsters to be born near the vegetable garden, to ensure an instant supply of vital carrots, lemons and herbs.

## BLOW UP THE WHITE HOUSE

To create the White House model, sculptures were made using photographs as a guide. Moulds were then created from this and filled with plaster to create the 14ft wide, 5ft high model. The building was destroyed by 27 separate explosions timed to create a single wall of flame. Then the spaceship, helicopter and light beam animations were added afterwards using digital effects.

Inside

# INDEPENDENCE DAY

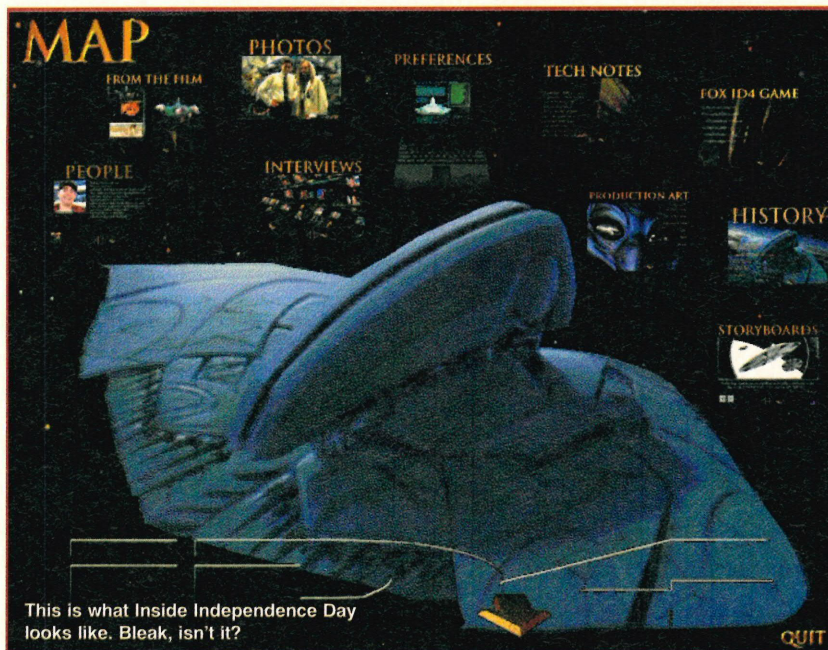
The marketing success of the decade, *Independence Day* is now available on a PC near you.

**PUBLISHER**  
Fox Interactive  
**DEVELOPER**  
Electronic Arts  
**CONTACT**  
01753 549442  
**PRICE**  
£40  
**MINIMUM SYSTEM**  
486/66MHz, 8Mb RAM,  
double speed CD  
drive, Windows 3.1 or  
Windows 95

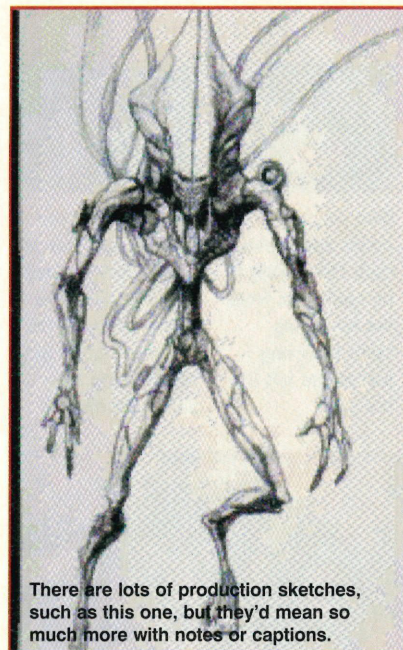
Disappointingly  
dull and rather  
uninformative  
when you get  
down to it.

PC REVIEW VERDICT

4



This is what *Inside Independence Day* looks like. Bleak, isn't it?



There are lots of production sketches, such as this one, but they'd mean so much more with notes or captions.

**L**ove it or loathe it, you can't fail to have noticed that *Independence Day* has arrived. It's the fastest grossing film ever, with one of the most successful marketing campaigns to match.

So, it's no surprise to see a 'Making of' disc hitting the shelves. After all, the same thing happened with *Secrets of Stargate*, the disc about Dean Devlin and Roland Emmerich's previous sci fi hit. If you've seen that disc, you'll be forewarned that *Inside Independence Day* is not going to be everything you're hoping for.

For a film with so many special effects, you'll find they take a surprisingly low profile on the disc. Text and stills are used to explain how the effects were created – disappointing to say the least. If ever video or animation could come in useful, now would have been the time. Instead of

exploring the special effects, the bulk of the disc is taken up by interviews with the cast and crew.

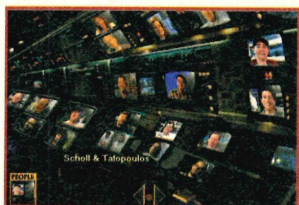
After a while you tire of the 'non-stars' telling you what it was like to work with so-and-so, and why their characters act the way they do. It's fiction, for goodness' sake! Still, the interviews with the production crew are better, giving you more of an insight into the actual making of the film. It's interesting, for example, to hear executive producer William Fay talking about how the military refused to cooperate unless all references to 'Area 51' were removed from the film. But you'll probably have heard most of it before during the huge marketing campaign.

As you'd expect, there are lots of stills from the film, photos, mini filmographies of various actors and ten video clips including various destruction sequences that some-

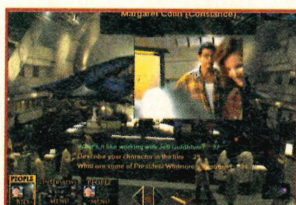
how just aren't the same in a 2 x 6-inch window. There are also storyboards and production sketches which will probably only appeal to the keener fans, but the links to the actual film stills give you the chance to compare the ideas with the finished work.

In addition to the film stuff, there's a tedious advert for *ID4* the game, and a History section with interviews from UFO expert Wendell Stevens, photos of supposed sightings (which would have been far more interesting with captions), and other alien paraphernalia. Sounds great, but it lacks sparkle, with lots of text and blurry photos.

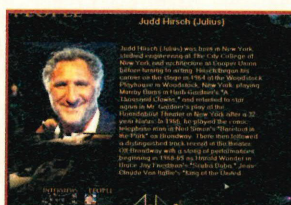
To be honest, *Inside Independence Day* is just one more piece of marketing merchandise that you could do without. If you're interested in the making of the film, wait for a video to come out. Otherwise, just let the hype quietly crawl away. (RH)



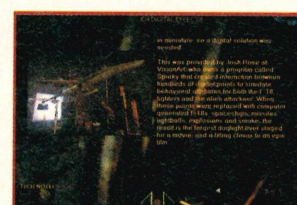
The interview section – 'chat' to members of the production staff.



According to Margaret, Jeff Goldblum's funny and sings a lot.



Judd Hirsch proves there's more to him than Alex on *Taxi*.



The bit you really want to know – how they did the special effects.



An alien looks at the missile. You can jump from the storyboard to the frame in the film.



You've seen the film, bought the disc, plastic toys, t-shirt. Now buy the game.

# CINEMANIA 97

If you're manic about movies, then the latest version of Cinemania should keep you in the asylum.

There's only one multimedia film guide on Hollywood's A-List: *Cinemania*. And the time has come again for this multimedia blockbuster's annual update.

As you'd expect, the '97 incarnation includes a few new features, but generally follows the successful Microsoft multimedia formula. The revamped Contents page plunges you into the content more directly, with four main sections to choose from. Cinemania Team Pick provides a film choice for each day, Celebrity Tours covers everything from Blaxploitation to Great Ladies of the Movies and are hosted by stars. The Quiz o' the Day covers different film-related questions, while Featured Artist takes you to a biography.

The real meat of the disc is found in the reviews and profiles section, written by three of America's top critics. Maltin's are usually a

brief paragraph giving you an idea of the plot, and a rating. Ebert's and Kael's are far more in-depth. Having different reviews is great – it's always nicer to get second and third opinions. You might even grow to have a favourite reviewer.

From the reviews you can jump to links on actors, actresses and directors, or look at the film clips and stills. And, of course, you can use the index, narrowing your search to the finest of categories. The film clips are a bit limited – from the '90s you have only *Forrest Gump* and *Silence of the Lambs*, presumably due to copyright restrictions. But you'd expect classic clips too.

One of the best features enables you to download monthly updates such as the latest film reviews to new Celebrity Tours. You'll also find a list of film Web sites, so you'll know where to point your Web

browser. If you haven't got a modem, this will inspire you to buy one, especially when you find recent films are absent from your collection. It's worth noting that while *Mission Impossible* just made it into the disc, *Twister* and *Independence Day* didn't, nor did Mike Leigh's brilliant *Secrets and Lies*. Also absent is information on how much films cost to make, or how much they made, which is sometimes useful to know.

It's worth remembering that this is an American disc – with ratings to US tastes – that hasn't been localised. You'll notice the shocking absence of *Trainspotting* – it's only just opened in the US. And, worse still, there are only two Carry On films included. But then you might find this selectiveness a good point. Let's face it, most films come from the US, and such omissions fail to ruin such a brilliant disc. (RH)

## PCR Quiz

So you think you're a film buff? Well then, you won't have a hard time with these easy questions.



1 Who's this pouting primadonna, and which Scorsese film did she appear in?

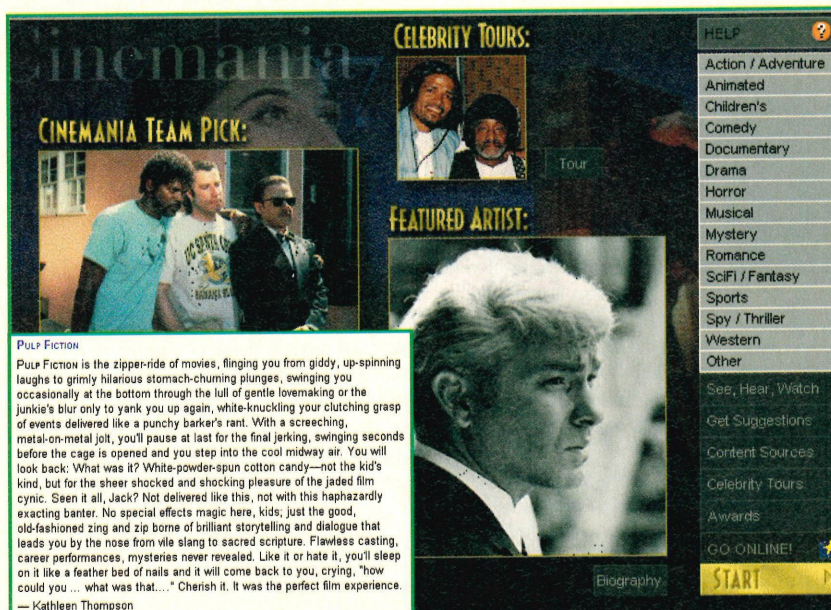


2 Richard E Grant plays Withnail in *Withnail and I*. Who played Danny, and in which 1993 film did he appear, with Dana Carvey and Mike Myers?



3 Martin Sheen and Sissy Spacek starred in *Badlands*. What were their characters called?

1. Sandra Bernhard  
2. Ralph Brown appeared in *Comedy* (1983).  
3. Kit and Holly Wayne's World.



Every time you slam the disc in the drive you'll see a different Quiz o' the Day, Featured Artist, Team Pick and Celebrity Tour. One click and you discover why the Team Pick has been chosen.

## Is it worth upgrading?

There are over 20,000 film reviews (the same as last year), 4,000 profiles of movie people (4,000), 1,276 stills (1,200), 35 video clips (20), 175 dialogue clips (162), and 790 articles on everything from 180° rule to zoom lens.

The Contents page is brand new alongside Cinemania Team Pick, Celebrity Tours, Quiz O' the Day and Featured Artist sections.

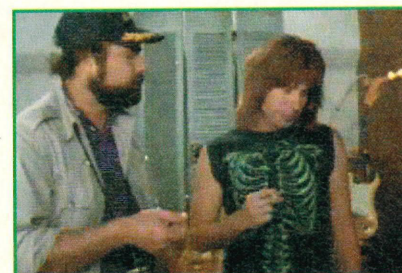
The Internet link has been improved, and now there are lists of related Web sites in a directory.



According to *Cinemania*, *Fargo* is one of the better films of 1996.



*Bill and Ted* may be your favourite film of all time, but Leonard Maltin's not convinced.



The many video clips include the cult film *This Is Spinal Tap* (1984).



Just in case you're lacking in imagination, *Cinemania* will help you choose a film.

## DEVELOPER

Microsoft

PUBLISHER

Microsoft

CONTACT

0345 002000

PRICE

£29.99

## MINIMUM SYSTEM

486/50MHz, 8Mb RAM, SVGA, double speed CD drive, Windows 95, on-line connection  
<http://www.msn.com/cinemania/>

Comprehensive and good overall. But slightly flawed due to its US orientation.

PC REVIEW VERDICT

8



The chapters of the book, arranged as a sort of chemical table. At key points in the text there are icon based links to visual aids and associated subjects.

# A brief

## BOOM!

"At the big bang itself, the universe is thought to have had zero size, and so to have been infinitely hot. But as the universe expanded, the temperature of the radiation decreased. One second after the big bang, it would have fallen to about ten thousand degrees. This is about 1,000 times the temperature at the centre of the sun, but temperatures as high as this are reached in H-bomb explosions." An extract from *A Brief History of Time*.

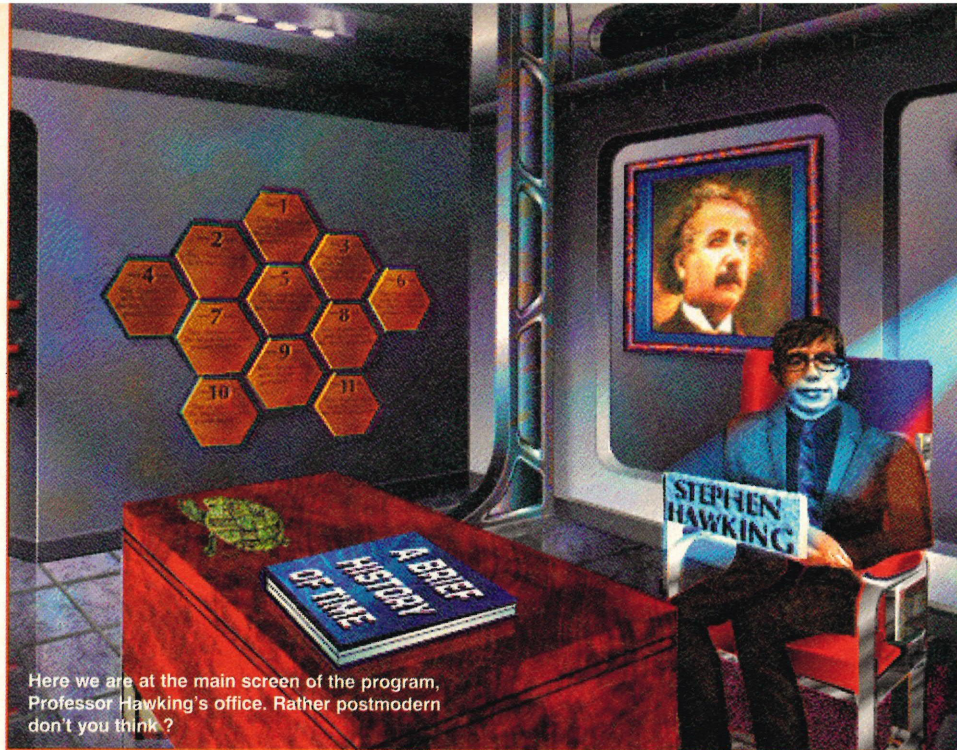
## CD REVIEW

Exclusive, interactive demo.

**DEVELOPER**  
Crunch Media  
**SUPPLIER**  
Macmillan Interactive  
**CONTACT**  
0345 697008  
**PRICE**  
£39.99  
**MINIMUM SYSTEM**  
486SX 33, 8Mb, double speed CD drive, Windows 3.1, SVGA

Effective visuals aid the understanding of difficult concepts. Modern physics made interesting.

PC REVIEW VERDICT



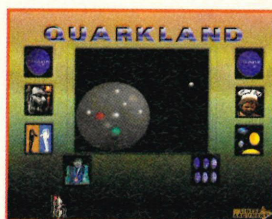
Here we are at the main screen of the program, Professor Hawking's office. Rather postmodern don't you think?

# HISTORY OF TIME

Goodbye flat Earth, hello inflationary universe. Welcome to the expansive ideas of the great Stephen Hawking.

All hope abandon, ye who enter here. According to Stephen Hawking, these words, borrowed from the poet Dante, form an appropriate warning to those hypothetical persons unlucky enough to fall into a black hole. It seems the sentiment would be equally well directed towards readers of Professor Hawking's bestseller, *A Brief History of Time*. Rereleased by Macmillan, (the first release having suffered from a number of sound and video problems), the CD-ROM re-interpretation of the book goes a long way to simplifying the practical and theoretical physics underpinning Hawking's ideas through the use of effective and often entertaining visuals.

Working around the tried and tested multimedia structure of a 'main screen', from



Quarkland, home of the sub-atomic quark, probably the most elementary level of matter in the universe.

which several avenues of exploration are possible, *A Brief History of Time* offers you access to well-presented visual and textual data on great figures of science such as Newton and Einstein, explorations of the sub-atomic world of quarks, a journey to the event horizon of a black hole, and details on Professor Hawking's scientific and personal background. And,

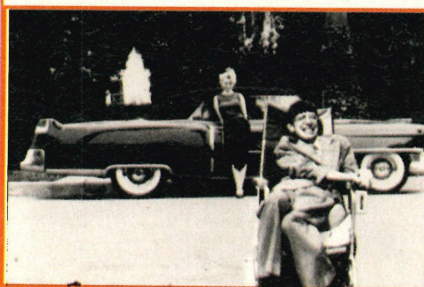
of course, the full text of the book is also packed in there.

Although some important ideas are covered with the visual levity of a Python animated sketch, the quality of presentation throughout is first-rate. The Quicktime videos on the disc, including conceptual explanations from other eminent physicists, complement the many animation sequences. Most of these are accompanied by the

unmistakeable digital voice of Professor Hawking. Movement throughout the program is aided by a changing icon bank at the bottom of the screen, enabling logical links to associated subjects, and there is a linear auto-play facility in case you merely wish to sit back and enjoy.

If you're one of the majority that found reading the book extremely hard going, or you're among the thousands who have yet to attempt it, there's much to praise. Although it is of course a lot more expensive than the book, it aids understanding through visually elucidating the abstract ideas and giving more of a background on questions dominating science today, such as quantum mechanics and the origin of the universe. A slick and at times witty adaptation, this CD-ROM is a quality release which more than does justice to a book that stretches the boundaries of astrophysics and asks questions as to the nature of our universe, space and time. (JT)

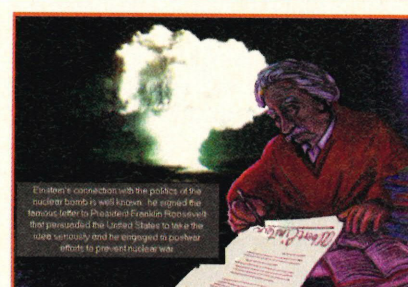
**If you're one of the majority that found reading the book, hard going, or have yet to attempt it, there's much to praise here.**



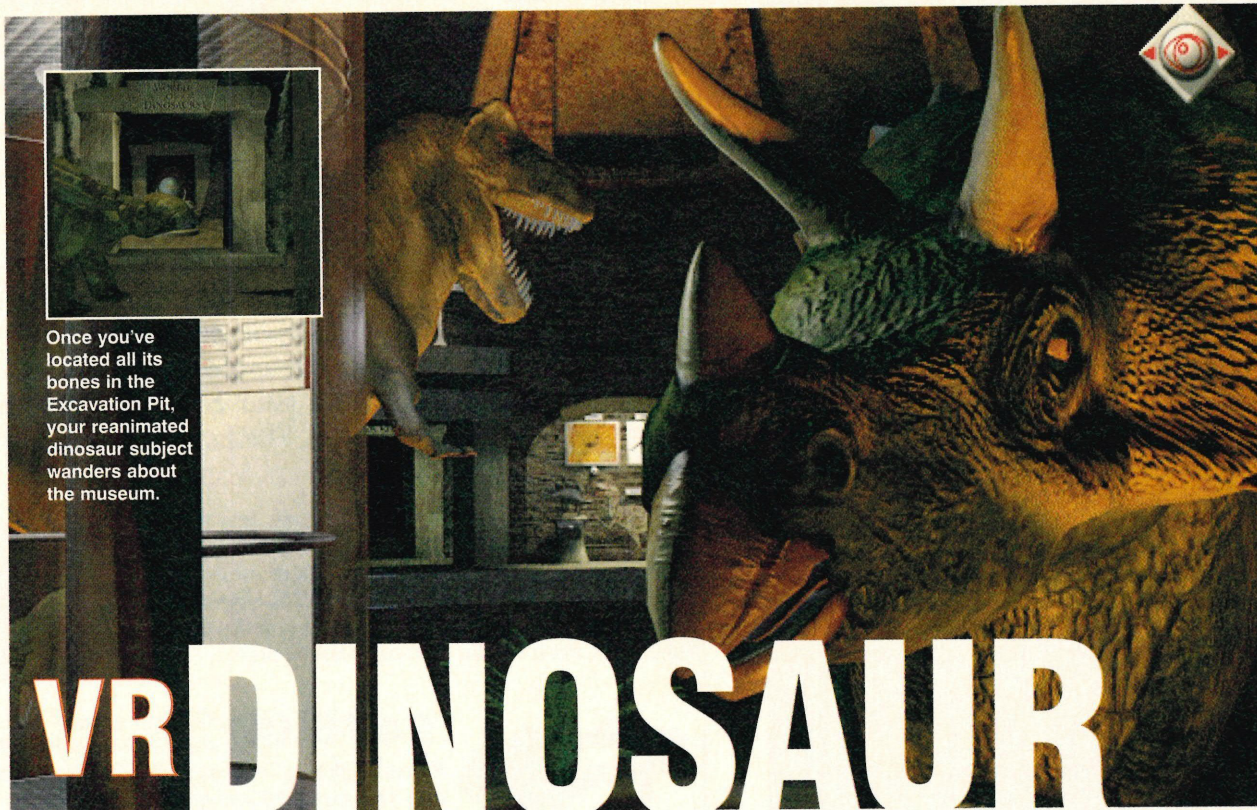
Stephen Hawking pictured with Marilyn Monroe. Apparently he was more interested in the car.



Hawking enjoys a game of poker with Data, Sir Isaac Newton and Albert Einstein.



A nice picture of Einstein. The ideas of Newton, Copernicus and Galileo also figure.



Once you've located all its bones in the Excavation Pit, your reanimated dinosaur subject wanders about the museum.

## INTO THE VOID



Before going into the Excavation Pit, you select your target dinosaur. This labels your collection pods with the names of the missing bones.



Need more clues about an excavated bone? Carbon dating can determine when its owner died (to the nearest couple of million years).

◀ The lift on the left takes you to the other floors of DK's Virtual Museum, but first you must buy the appropriate CD-ROM.

# VR DINOSAUR HUNTER

Step back more than 250 million years to a time that no one can forget, when lizards ruled the earth.

**Y**ou're probably familiar with the asteroid-and-earth billiard ball theory, but did you know that at the same time, volcanic activity in India cloaked the earth in cloud? Older ideas, from a time when any Oxbridge don with a brace of tribesmen called himself a palaeontologist, include the preposterous idea that the dinosaurs simply ate each other to extinction, or that their omnipotence brought widespread impotence, as they became too crowded for stress-free sex.

Dorling Kindersley's new *VR Dinosaur Hunter* is hot on dinosaur death, but doesn't explain what's brought them back to life. Future archaeologists will scratch their heads at the dinomania of the late 20th century, as toys, books and lunchboxes stream across the planet like some successful early

mammal. Maybe we simply need dragons now more than ever. Certainly, it's impossible to imagine *Dinosaur Hunter* without the *Jurassic Park* cult leading up to it.

For example, *Dinosaur Hunter* is set in a virtual museum. Star attraction is the excavation pit where you hunt for bones. The aim is to construct a complete skeleton by finding the missing bits, be they fibulas or claws. Get the whole set and the reborn dinosaur hares off down the corridor. The scowl the lizards flash you if you stumble across them later is classic Spielberg.

Simply exploring the museum is an expedition. This might have been clumsy, but it's pulled off with panache. Gloomy passages lead to caverns, while long lost insects whistle and creak in the air, bringing prehistory to life. There are interactive

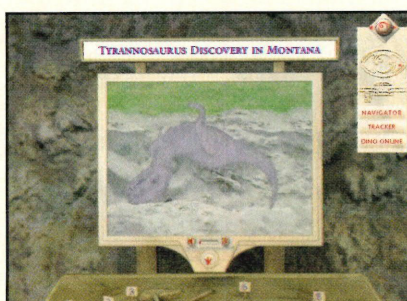
consoles dotted around, explaining various facets of dinosaur lore. For instance, in *Survival of the Fittest* you pit various contestants against the ubiquitous Tyrannosaurs in different habitats. You can actually see the Iguanodon outpacing the T-Rex in the swamp, where its massive weight causes it to sink. Interestingly, it seems the mighty Rex's best tactic was to skulk about behind a tree, waiting for something to wander past that was stupid enough not to notice a beast the size of a house.

Like the Louvre or the National History Museum, it's impossible to give more than an overview of *Dinosaur Hunter*. Where it does stumble – sometimes it's deathly slow – at least it's through ambition. If anyone deserves to make money out of multimedia, it's Dorling Kindersley. (OB)

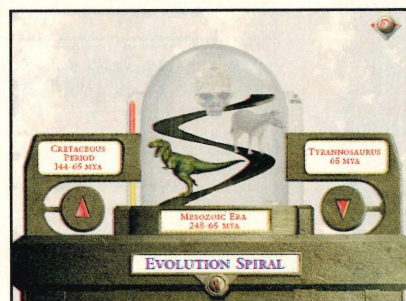
**DEVELOPER**  
Dorling Kindersley  
**PUBLISHER**  
Dorling Kindersley  
**CONTACT**  
0171 836 5411  
**PRICE**  
£29.99  
**MINIMUM SYSTEM**  
486/33 MHz, 8Mb RAM,  
double speed CD-ROM  
drive, SVGA, Windows  
3.1 or later.

**PC REVIEW VERDICT**  
An excellent CD, using multimedia to create an immersive museum, rather than as an end in itself.

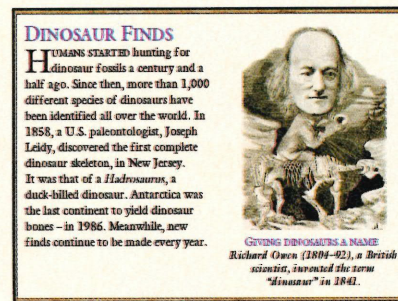
9



This exhibit explains how the death of a particular dinosaur translated into the shape and position of its fossil remains.



The approach of the evolutionary spiral display, which tracks evolution in a revolving glass bell-jar, typifies the disc's creativity.



**DINOSAUR FINDS**  
HUMANS STARTED hunting for dinosaur fossils a century and a half ago. Since then, more than 1,000 different species of dinosaurs have been identified all over the world. In 1858, a U.S. paleontologist, Joseph Leidy, discovered the first complete dinosaur skeleton, in New Jersey. It was that of a *Hadrosaurus*, a duck-billed dinosaur. Antarctica was the last continent to yield dinosaur bones – in 1986. Meanwhile, new finds continue to be made every year.



GIVING DINOSAURS A NAME  
Richard Owen (1804–92), a British scientist, invented the term "dinosaur" in 1842.



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PRICE OF A LOCAL CALL

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# Oregan

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## £120.00

Simuleyes. Reality is the third dimension with the Ultimate 3D Glasses, true Stereoscopic 3D brings lifelike depth and clarity to your computer screen.

Great for games, multimedia, VRML.....and much much more.

Space Orb 360, the controller with balls, or at least one. Six Degrees of motion, four fire buttons. With intuitive and responsive actions the Space Orb 360 offers the very best in game control for Doom, Duke Nukem 3D, Dark Forces, Descent 2 and others.

## £85.00

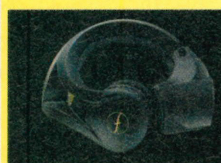


**£475.00** Virtual i-glasses! Full 3D and head tracking. Plug Virtual i-glasses! into your PC and really get into the game. 80 inches of crystal clear imagery with hi-fi stereo sound. Supports Descent, Heretic, Doom, and many more.

"If we had two heads, we'd buy one for each!" PC Gamer 1995

Free-D. The ultimate Virtual Joystick, no cables, no base, no mess, just 100% control. Free-D uses ultrasonic technology to give responsive, intuitive control to 3D games. Beats the living daylight out of other joysticks.

## £59.00



## £POA - New Low Price

Stick your head where it doesn't belong, in a VFX1 Headgear. Live games in the world's most immersive Virtual Reality system for the PC. Supports Duke Nukem 3D, Doom, Descent, Quake,

Mech Warrior 2 (highly recommended), EF 2000, Flight and many many more. Full accurate head tracking and stereoscopic 3D support.

"The coolest peripheral you can buy for your PC." PC Magazine

SDT Glove. Virtual Reality Glove. **£395.00 / £445.00**  
Uses serial port, strictly for the VR or 3D enthusiast. Supports Windows 95 and MSDOS.  
Right £395.00, Left £445.00



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Payment Method:	Total	

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## THE WORKS

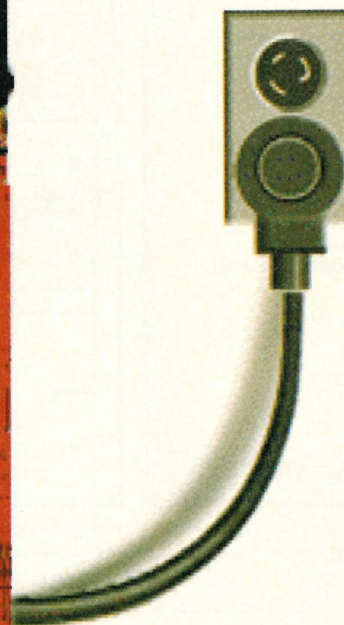


The Works, not surprisingly, is the section of the magazine where we try to help you get the most out of your PC from a practical point of view. In other words, here's where we review new hardware and software. Furthermore, in The Works we give you tips on how to use new PC packages.

Top of the agenda this month is a great new audio program called *Cakewalk Pro Audio 5.0*. Find out what I thought of it, starting on this page.

Also featured this month are three voice recognition programs, plus round-up reviews of new printers and CD-ROM writers. And as a special bonus, we've thrown in a series of desktop publishing tips.

Mat Broomfield  
Technical Editor  
pcreview@futurenet.co.uk



# Cakewalk PRO AUDIO 5.0

Professional music tools are becoming less expensive and easier to use. Here's the latest version of one of the best...

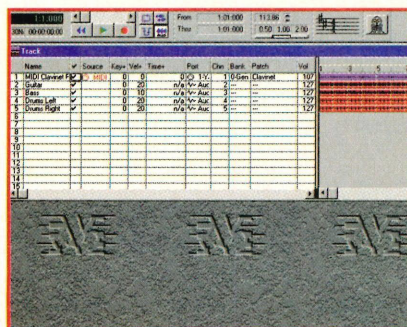
**W**hen you look at evolution, nature only selects and retains those features that best contribute towards the survival of a species. The same isn't true of software, and the undiscerning software publisher can keep adding bells and whistles ad nauseum. Eventually, the program crashes under the weight of its own features, and becomes unusable. The discerning publisher knows there's a limit to the number of features he can add to a pro-

gram before it reaches a critical mass, and it seems *Cakewalk* has almost reached it.

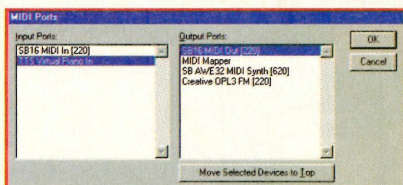
Compared to other programs, Sequencers have evolved quickly, moving from unfriendly DOS-based software, to all-singing, all-dancing 32-bit Windows packages in very few years. Notation printing was added, then you could record and play digital audio along with the MIDI data. Now? The program is already great, and further improvements require great restraint to ensure that they're strictly for the better. Fortunately, restraint has been exercised and the value has been added mostly in the form of ancillary programs and data,

rather than by adding features to the core program.

But let's not overlook what a lovely, elegant program *Cakewalk* already is. There are many sequencing programs available, and to be honest, for the home user there are £50 to £100 packages that offer all the features you'll ever need. However, if you start to take your music rather more seriously, only a few sequencers can cut the mustard. From Scandinavia, there's



*Cakewalk Pro Audio* is not so much a major upgrade, as a series of well-judged tweaks.



*Cakewalk*'s sample editor is powerful, but not nearly as good as the one included with *Cubase Audio*.



The notation section is the one area of the program that could still do with some major improvement.

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You can use Jukebox to play MIDI and wave files. It's ideal for playing long samples.

WHAT'S NEW?

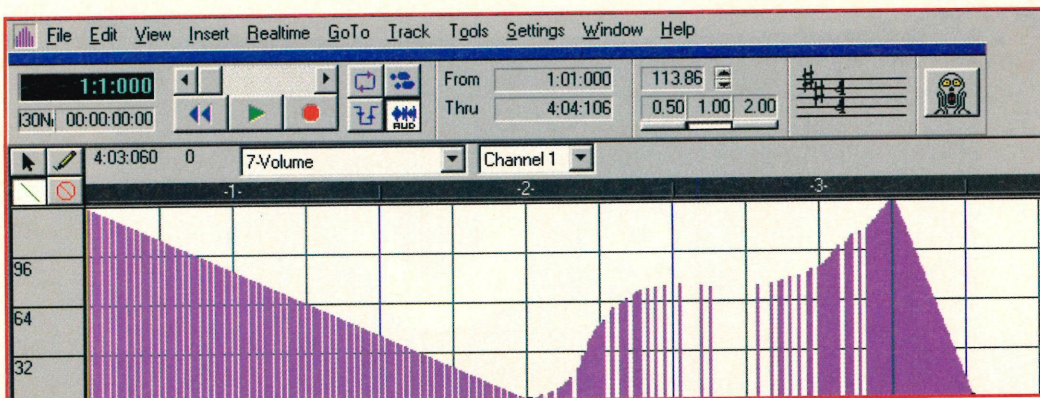
Although Cakewalk Pro Audio 5 has many tweaks, here are the main improvements:  
New fast 32-bit version for Windows 95  
Better selection routines for faster editing  
Support for more professional recording hardware  
Better support for new MIDI file conventions  
New jukebox for playing MIDI and wave files  
New CAL language for advanced macro-like scripts

CD REVIEW

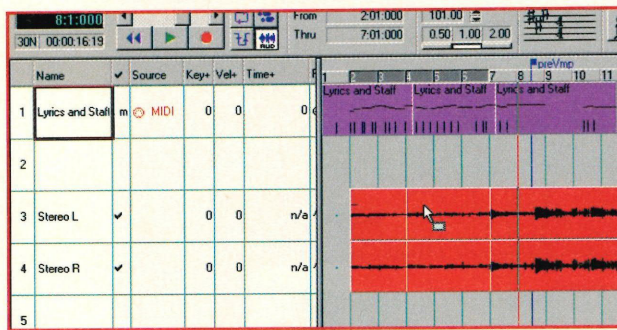
Exclusive, save-disabled demo on Cakewalk Pro Audio 5.

NEXT MONTH

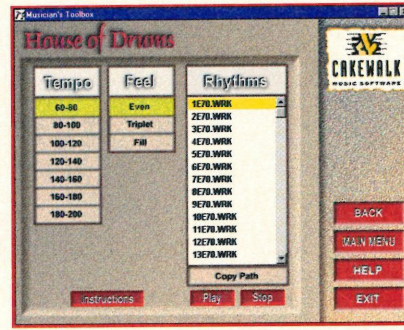
In our music special we give away Cakewalk's little brother Jammer Hit Sessions, along with tutorials on how to make your own music.



This is Cakewalk's controller screen, where you can change the setting of every single MIDI controller. In the one shown, we're drawing a new volume level.



Using the real-time tutorials, you'll get going in no time – despite the abrasive American tutor!



The Deluxe CD contains tons of audio clips, such as these MIDI drum loops.

Musicator, while Europe has produced Cubase. In the US, Cakewalk has always dominated. Ironically, Cubase led the way to a friendlier composing environment with its innovative Arrange screen, which enables composers to copy, cut and re-arrange blocks of music with speed and simplicity. Despite a long refusal to produce a copy-cat interface like the rest of the industry, Cakewalk eventually relented, correcting probably the only criticism of the program.

Now, it's as easy to record audio data as it is to record MIDI, and both operations are performed from the main window with minimal mouse clicks. Once you've recorded data, a right mouse click offers access to a variety of editing tools, ranging from a staff-sheet for creating and printing notation, to a sample editor where you can clean and

enhance wave data. The score printing is limited compared to Cubase Audio. Worse, these don't affect playback as they do in a dedicated notation package like Encore. If Cakewalk wants to add value to the program, this is an area where there's still massive potential for improvement.

There are some excellent real-time tutorials aimed at novices. In the deluxe CD version are a selection of advanced tutorials including audio cross fading, groove quantizing and using macros. The program's new CAL feature goes beyond normal macros, enabling you to write your own filters, quantization routines, drum map conversion programs and far more.

Version 5 includes several small bonus programs, one of which is Jukebox. This enables you to take audio and MIDI data and

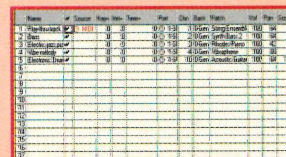
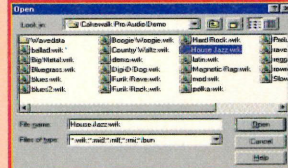
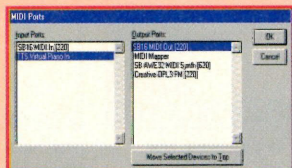
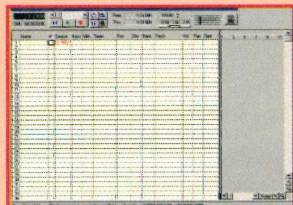
create a playlist. That's handy enough, but unlike MediaPlayer, when you choose to play a large sample, Jukebox doesn't insist on spooling the entire thing first – it commences playing immediately.

The Deluxe CD has enough music clips to keep you inspired for months, but these are either funky or rock-based. There are also MIDI tunes with explanations about how and why they were constructed, and there are tons of audio clips consisting of everything from drum patterns to horn riffs and wailing metal guitar squeals.

So, if you already own Cakewalk Pro Audio, is it worth upgrading? A definite yes, but only if you get the registered owner's upgrade discount, and buy the Deluxe CD version. It's a great starting place for first-time pros or wannabes. (MB)

How to... make music with Cakewalk Pro Audio 5

- 1 Once the program's installed, you'll be asked if you want to associated MIDI and WRK files with Cakewalk. As this is only a demo version, say No, or your Explorer or File Manager associations will be altered. Select the Cakewalk Pro Audio Demo icon from the Start menu and the program will load. It will perform a series of tests to identify and configure your soundcard.
- 2 Once the program's running, you'll need to instruct it what audio hardware you want to use. Select MIDI Devices from the Settings menu. Output Ports lists all possible destinations for the MIDI music that will be played. You'll need to select at least one of them, although you can choose more. You'll also need to select an Input Port if you want to record MIDI music in real-time.
- 3 Now to test your settings. Select Open from the File Menu, then choose the House Jazz.wrk file, then click Open. A File Info window will tell you about the tune you're loading. Click OK. The program will ask about sending System Exclusive Banks. These set the soundcard up for this particular song, so click OK again. The song should be loaded, and if you click the Play button, you can listen to it. Funky!
- 4 The display shows four instruments playing in lines two to five. Although each track has a name, this is merely a label, and the actual instrument used appears in the Patch column. You can easily change the instrument by double-clicking in the Patch column beside the one you want to alter. The Track Properties requester will then appear, and you can change the instrument using the drop-down Patch list.



# CUBASE AUDIO XT

**L**ike two gnarled but friendly old rivals taking it in turn to trailblaze, Steinberg and Cakewalk are never more than a pace or so apart from each other. Just as Cakewalk is hitting the streets with a new release, Steinberg comes up with a new version of Cubase.

Unlike *Cakewalk Audio*, this latest version of *Cubase* is far more than a maintenance release. Steinberg has invested more into the development of compatible technologies, and its product range has always been broader than Cakewalk's. With this version of the program, it's built upon the program's audio capabilities, perfectly combining a sequencer with a multi-track sampler and digital mixer.

In fact, you're no longer limited to the number of digital audio tracks the program can handle. Even dedicated digital mixing packages such as *SAW* or *Samplitude Studio* are unable to accomplish such a feat! Whether or not you can take advantage of this feature still depends on the number of soundcards in your computer, and their specifications, but then that limitation applies to all digital

recording systems, and will continue to do so for the foreseeable future.

Another new digital audio addition is *WaveLab Lite*, a blissfully elegant professional sample editor that's just so quick and easy to use.

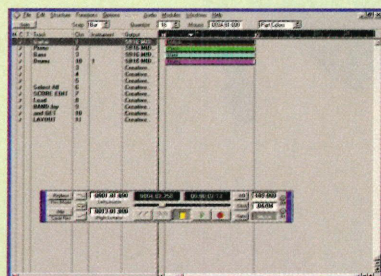
*Cubase* has always slaughtered *Cakewalk* when it comes to the power of its notation features, and there are many specialist scoring packages that don't provide such a range of symbols. Even so, Steinberg has managed to improve the notation editor, making it easier to produce commercial, quality sheet music.

There's a substantial difference in

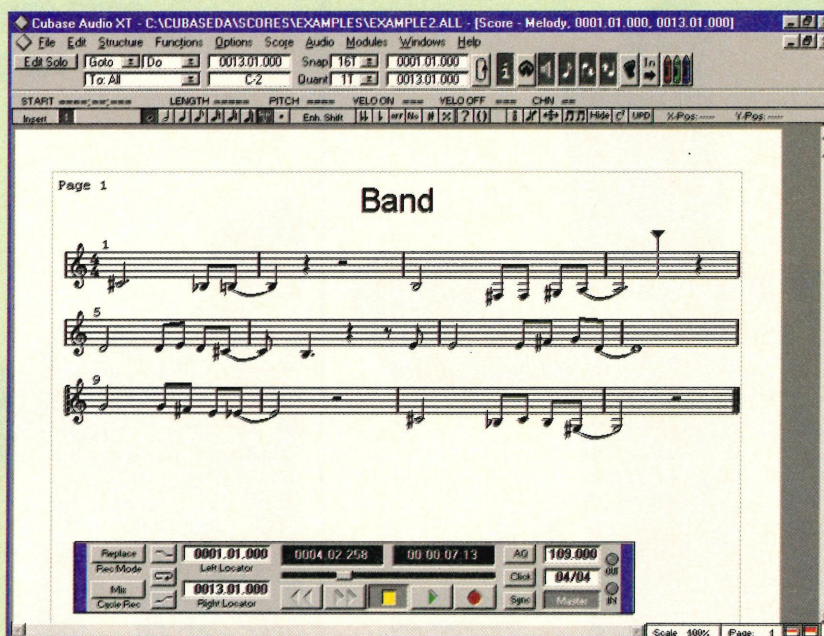
price between *Cubase 3.0* and *Cubase 3.0 XT*. The XT of the title refers to external devices, and if you're using high end audio equipment such as the DigiDesign Session 8, the Yamaha CBX D5/D3 or the Audio Media 3, you'll find that the more expensive program supports them directly.

Although *Cubase* and *Cakewalk* have always had a large following, *Cubase Audio 3.0* is very clearly the superior program, while the XT version is aimed directly at the professional musician.

Despite a fierce and innovative attack from *Cakewalk*, *Cubase* is still the more powerful program. (MB)



Cubase is still the superior program, thanks particularly to its advanced scoring and notation features.



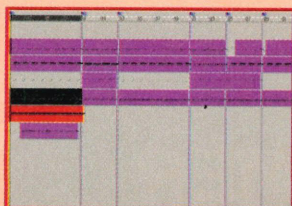
If your budget can't stretch to splashing out on a separate dedicated notation package, *Cubase Audio* is the next best thing. In fact, the latest release proves that Steinberg isn't interested in maintenance releases, but is seriously committed to its programs.

**DEVELOPER**  
Steinberg  
**PUBLISHER**  
Harman Audio  
**CONTACT**  
0181 207 5050  
**PRICE**  
£468.82; XT £821.32  
**MINIMUM SYSTEM**  
486 DX/50, 8MB, VGA

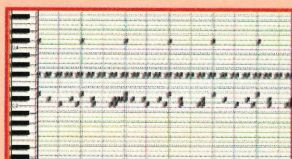
**PC REVIEW VERDICT**  
Cubase is incredibly comprehensive, just the thing for professional home or studio recording.



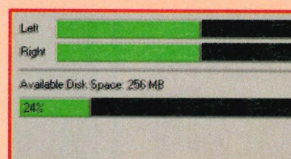
**5** In the right-hand side of the Track window you'll see the Clips pane where the different parts of the song are arranged into playing order. Click the magnifying glasses at the corner of the window, and you can alter the horizontal or vertical scale of the display. Each pink rectangle represents a clip of music which can be moved, copied, pasted or deleted.



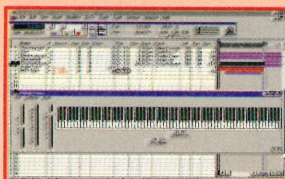
**6** Double click the ticks besides lines two to four. They should change to an M, which tells you the track is muted. Now return to the Clips pane and right-click the drum clip in line five. An option list will appear. Choose Piano Roll. A window shows each drum stroke as a black or pink rectangle whose vertical position denotes the drum being played. Click the play button to see how the Piano Roll replays music. Close the window when you're finished.



**7** Connect a microphone or CD player to the mike or line in socket of your soundcard and you can record an audio track. Double click the Source column next to line seven, change the source to Left, click OK. Use the Audio Meters/Test option from the View menu to ensure that your PC is ready to record. Click OK, then click the red record button. After a pause, the tune will play. *Cakewalk* is now recording. Click the play button to stop.



**8** To record a MIDI track, change track eight's Source to MIDI. Whether you use the Virtual Piano or an external music keyboard connected via a MIDI interface is irrelevant; the result is the same. When you click the record button, the program records your keystrokes. By altering the Patch and the Channel number, you can specify which instrument your computer uses to replay those keystrokes.



**DEVELOPER**  
Cakewalk Software  
**PUBLISHER**  
Et Cetera Distribution  
**CONTACT**  
01706 228039  
**PRICE**  
£329.99 (deluxe version)  
**MINIMUM SYSTEM**  
386 SX/25, 4MB, Windows 3.1, 8MB hard disk, MIDI instrument

**PC REVIEW VERDICT**  
Cakewalk Pro Audio 5 is not hugely different from version 4, but that version was excellent anyway.



# What the *hell* is this?



Is it...

- A** A domestic robot that cleans your home while you're not there?
- B** A CD hi-fi system with cassette and graphic equaliser?
- C** A state-of-the-art drinks cabinet with intelligent ice dispenser?

*T3: Tomorrow's Technology Today* – answering all your questions about the amazing world of new technology. Coming to a newsagent near you... soon.



A new magazine from the makers of **PCREVIEW**

# MAGIC THE GATHERING

This month, definitely, PC Gamer puts MicroProse's version of the legendary card game through its paces.



**SCREAMER 2**  
We journey to Italy in search of the PC's finest racing game.

**QUAKE**  
First review of the full version!

**PC GAMER**  
ON SALE THURSDAY SEPTEMBER 5TH

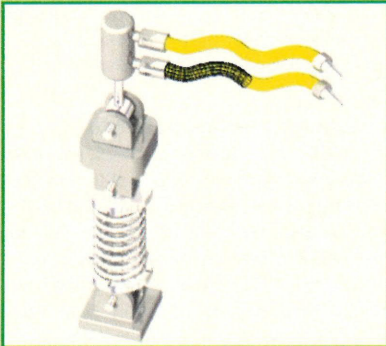
© 1996 Wizards of the Coast, Inc. Christopher Rush

# CAD ATTACK

AutoCAD has ruled the roost for years, but now it has challengers at every level. Here are two of the best.

## COREL CAD

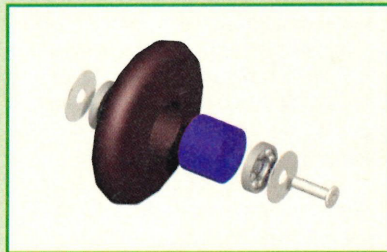
It's a brave company that moves into entirely new territory and takes on the established industry leader, but that's exactly what Corel has done with *Corel CAD*. It's already carved a solid reputation for itself in the graphics and DTP markets, and to an extent, disciplines learned in those areas translate well to the CAD arena



*Corel CAD* is easier to use than *AutoCAD*, a program with which it competes directly.

— especially since Corel has added *Ray Dream Designer* to its stable of programs. *Corel Dream* (as it renamed it) is a flexible 3D program bundled with *CorelDRAW! 6*. It's also opted to include it with *Corel CAD*, a strange move, as *Corel CAD* already incorporates its own raytracing engine.

It uses the industry standard ACIS modelling engine, also used by *AutoCAD*, enabling you to exchange drawings between the two. Around the ACIS engine, Corel has built a program that combines



*Corel CAD* has a built-in raytracer for producing images like this.

power with great ease of use. Intuitiveness and good interface design are essential. On that score, *Corel CAD* rates highly, but some basic drawing operations could have been optimised further.

Its 2D modelling function includes a comprehensive range of drawing, shaping and dimensioning tools. Surprisingly, there are no basic fills such as hatching. There are plenty of proper surface materials: metals, glass, and so on, which are often more elaborate than you need.

In three dimensions, you have an impressive array of modelling tools to help you construct complex and simple shapes. You can add objects together, or use one as a cutting tool to hack bits from another. In fact, in 3D the program compares favourably with some mid-priced raytracing packages.

*Corel CAD* is a very powerful (if slow) piece of software. It needs lots of system resources, but at a fifth the price of *AutoCAD*, bears strong consideration. (MB)

**DEVELOPER**  
Corel  
**SUPPLIER**  
Channel Market Makers  
**CONTACT**  
01703 812755  
**PRICE**  
£816.63  
**MINIMUM SYSTEM**  
486DX, 16Mb,  
Windows 95, VGA,  
42Mb hard drive,  
CD-ROM drive

**PC REVIEW VERDICT**  
*Corel CAD* combines ease of use with incredible power. It's no give-away, but the competition costs five times as much.

7

## TURBO CAD 2D/3D

Unlike Corel, IMSI has had a presence in the CAD market for years, and its low-cost *TurboCAD* package has always been an award winner. It's not really in the same league as *AutoCAD*, but it provides more than enough features for the home and semi-pro user.

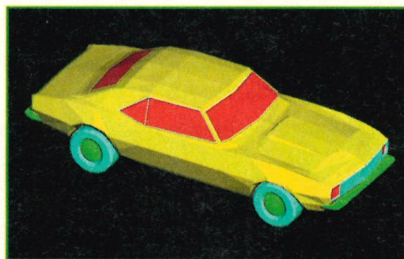
This latest version has its sights set rather higher than previous releases, and whereas *Corel CAD* challenges *AutoCAD 13*, *TurboCAD 2D/3D* is taking on *AutoCAD LT*, a lite version of the industry's premiere CAD program.

The package consists of three programs; *TurboCAD 3.0* for Windows 3.1, a Windows 95 version of the same program and *TurboCAD 3D*. By separating the 3D and 2D modules, IMSI has made the program less friendly than it might be, for you have to learn two entirely different user interfaces. However, the reward is speed, and each program runs quite quickly.

Despite its relatively clean interface, there's a great deal of power lying beneath the surface. The 3D package feels rather clinical. If your prime concern is the creation

of millimetre-accurate, but fairly ordinary, 3D models, this clinical approach works well, and makes the program stand out from the throng of 3D rendering packages. However, if you're looking for something a bit more... organic, you should look elsewhere. Having said that, *TurboCAD 3D* does include a wonderfully straightforward tool for creating a complex surface mesh — you just define four edges in 3D space, and the software links them to produce a solid mesh.

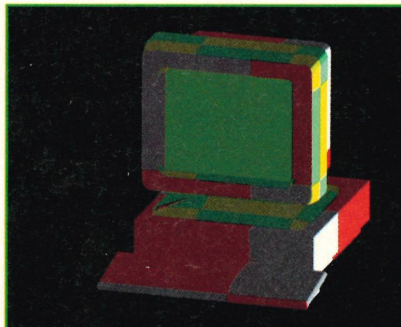
And as for the *TurboCAD 2D* program, it's extremely competent, just as it was in



Although it's quick and easy to use, *Turbo CAD* leaves much to be desired when it comes to final rendering.

earlier incarnations, and it's hard to imagine anyone but the most hardened professional requiring more features than it can provide. The interface is cleanly designed and quick to get to grips with. In fact, the only fly in the ointment is the accompanying manuals, which take far too long to get to anything useful.

At under £120, *TurboCAD* represents great value. A first rate program. (MB)



You're unlikely to find a more comprehensive CAD package within £300 of the price of the *Turbo CAD*.

### NEXT MONTH

News about a *TurboCAD* giveaway, free with *PC Review*

**DEVELOPER**  
IMSI  
**SUPPLIER**  
IMSI  
**CONTACT**  
0181 581 2000  
**PRICE**  
£116.33  
**MINIMUM SYSTEM**  
386, 4Mb, Windows,  
VGA, 20MB hard disk

**PC REVIEW VERDICT**  
*TurboCAD 2D/3D* is a reasonably priced, yet comprehensive medium level CAD package.

8

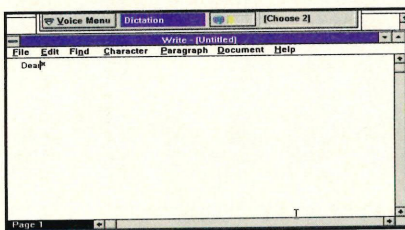
## DRAGON DICTATE

**DEVELOPER**  
Dragon Systems  
**SUPPLIER**  
Dragon Systems  
**CONTACT**  
01242 678575  
**PRICE**  
£659 (other versions  
cost between £399  
and £1,529)  
**MINIMUM SYSTEM**  
486/33, 16Mb RAM,  
Windows 3.1, 22Mb  
hard disk, soundcard

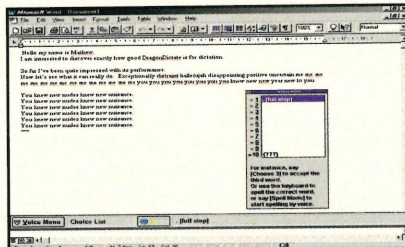
While not the  
most powerful  
system, it's  
the most user-  
friendly, with  
quick and easy  
voice training

PC REVIEW VERDICT

8



The Kurzweil-based programs claim to recognise up to 80 words a minute. DragonDictate is more accurate at 40wpm.



DragonDictate is very impressive in its interpretation of vocal inflection.

# TALK TO YOUR PC

Why waste time typing when you can tell your PC what to do? We look at three top speech recognition programs.

## KURZWEIL VOICE

**DEVELOPER**  
Kurzweil Applied  
Intelligence, Inc  
**SUPPLIER**  
Responsive Systems  
Limited  
**CONTACT**  
0171 602 4107  
**PRICE**  
£595  
**MINIMUM SYSTEM**  
486 DX4/75, 16Mb RAM,  
Windows 3.1, 35Mb  
hard disk, soundcard

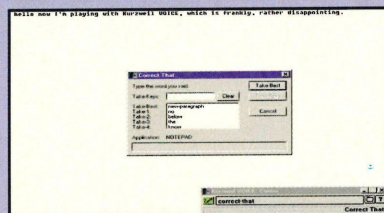
The Kurzweil  
recognition  
engine is world  
renowned, but  
failed to impress  
us. It's not that  
friendly either

PC REVIEW VERDICT

7



The Kurzweil tutorial isn't as effective or easy to follow as the DragonDictate tutorial.



Correcting a dictation mistake using Kurzweil Voice. You'll do this a lot early on.

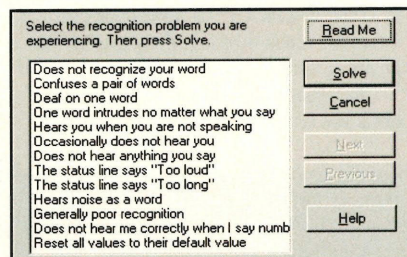
## KOLVOX OFFICETALK

**DEVELOPER**  
Kolvox VoiceWriter Ltd  
**SUPPLIER**  
Kolvox VoiceWriter Ltd  
**CONTACT**  
0171 245 9312  
**PRICE**  
£875.38  
**MINIMUM SYSTEM**  
486 DX/33, 16Mb RAM,  
Windows 3.11, 30Mb  
hard disk

Sadly, OfficeTalk  
depends on a  
second-rate  
soundcard, but  
at least you  
get additional  
features

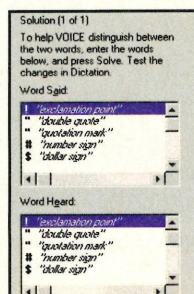
PC REVIEW VERDICT

6



Using the Kurzweil recognition Wizard, you can sort out any recurrent errors with the OfficeTalk or Voice programs.

Confusing certain word pairs is one of a range of common misrecognition faults that occur with all three programs.



**T**he voice. The original form of human communication. Books, e-mails and faxes are fine in their roles, but when you want to communicate something quickly and effectively, only the Bob Hoskins adage will do. Yes, it's good to talk. In sci fi tales, conversations with computers are commonplace – remember HAL 9000? – but in reality, we can only talk to our PCs using a keyboard, mouse or joystick. But are we close to a truly understanding voice controlled system?

We looked at the three top speech recognition systems for the home office market. There are hyper-expensive pro systems available, but they're only really suitable for specialist purposes.

These programs won't enable you to hold true conversations with your computer. There are commands and protocols that must be followed. Even the best program doesn't work straight out of the box, and to make matters worse, the programs don't use the same command set. *Kurzweil Voice* and *Dragon Dictate* use a formal structure, whereas *Kolvox OfficeTalk* uses instructions almost like ordinary spoken English.

### Continuous training

Once you know the commands, the programs must be trained for each user's voice to achieve acceptable levels of recognition. *Kurzweil Voice* claims the best out-of-the-box recognition, but we found it lacking. *Kolvox* also uses *Kurzweil's* voice recognition engine as the basis of its system. Training takes anything from 30 minutes to six hours, but in practice, it never ceases.

With *Dragon Dictate*, initial training consists of speaking a long list of words

and commands to order. The program records the way that you enunciate each command, and builds up a personal profile of your speech patterns so that it can understand what you say in future.

### Various speech patterns

In daily use, whenever you speak a word or issue a command that one of the programs recognises incorrectly, you should tell it about the mistake. It will then add the new variation of your speech patterns to its interpreting dictionary. The program constantly builds a record of your voice pattern, and its training is an on-going process.

Initially, even a simple sentence like, "Hello, I'm pleased to meet you," can be misrecognised. Once you've repeated the sentence half a dozen times (with corrections), most of the words will never be mistaken again. As you can appreciate, this means that the program quickly builds up a vocabulary of simple words, but may take considerably longer to establish a comprehensive database.

All programs come with a headset microphone that plugs into your soundcard. Sadly, these mikes are rather sensitive to background noise, but for £85 *Kurzweil* has a special pressure gradient mike that's extremely tolerant of atmospheric noise.

Both *Dragon Dictate* and *Voice* connect to any soundcard with a mike input, but the *Kolvox* system currently only works with the MegaPhone card, which is included. This card combines an unexceptional 16-bit soundcard with a 14,400bps baud modem. Although the *Kurzweil* system uses a more powerful engine, *Dictate* is more friendly, has a better tutorial, and is easier to use when correcting mistakes. (MB)

### How does it work?

Speech recognition works by breaking incoming sound down into a series of phonemes. These are audio building blocks, which, when reassembled in the right order, create whole words. Although we use the same language, accent and diction means that each of us may use slightly different phonemes to vocalise the same word. For that reason, each of these programs keeps a dictionary that stores a list of personalised phonemes for each user. Eventually, this constantly updated list enables the program to recognise you almost as fast as you can speak. So. You. Don't. Have. To. Speak. Like. This.

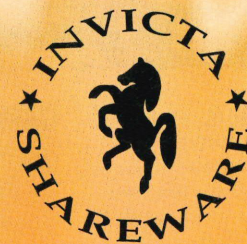
THE PRICE  
YOU SEE IS THE  
PRICE YOU PAY!  
NO EXTRA  
CHARGES



# INVICTA SHAREWARE

THE HOME OF QUALITY CD-ROM'S

**KIDS STUFF '95** - Over 170 programs written specifically to stimulate and absorb children of all ages. While designed to be fun and easy to use, there is also a wealth of material that children over a wide age range (from 1-16) should find challenging and entertaining, and all for only £10.00.



## REFERENCE

BBC GARDEN DESIGNER 2	£21.50
BIBLE LIBRARY v1.1	£22.50
<b>BODYWORKS 5.0</b>	<b>£18.00</b>
BRITISH MULTIMEDIA ENCYCLOPEDIA	£19.95
CHESTON VOYAGE THRU BIBLE	£32.00
COLLINS DICTIONARY OF QUOTES	£19.95
COMPTON'S ENCYCLOPEDIA '96	£29.95
COMPTON'S HOLY BIBLE	£23.00
COMPTON'S MULTIMEDIA BIBLE	£26.00
COOKBOOK HEAVEN 2	£12.50
COREL - ALL MOVIE GUIDE	£23.00
COREL - WORLDS GREAT CLASSIC BOOKS	£21.00
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DK - AMA FAMILY MEDICAL GUIDE	£43.00
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<b>DK - ENCYCLOPEDIA OF SCIENCE</b>	<b>£29.95</b>
<b>DK - HISTORY OF THE WORLD</b>	<b>£29.95</b>
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## OUR TOP 10

### GRAND PRIX 2 (£32)

Fantastic action sim eagerly awaited.

### QUAKE (£32)

Game of the year. Even better than Duke Nukem 3D.

### DUKE NUKEM 3D (£32)

Released at last! The best game in its genre.

### CIVILISATION 2 (£35)

The ultimate version of the best-selling strategy game.

### HERETIC (£29.95)

Over 40 spine-chilling levels of 3D retribution.

## GAMES

11TH HOUR	£29.95
ACTUA SOCCER	£29.95
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## OUR TOP 10

### DESCENT 2 (£32)

Back to the depths for more 360° spinning action.

### THE BEAST WITHIN (£35)

6 CD's to this tension-building mystery.

### TOP GUN (£29.95)

Superb dogfighting action. Compete for the trophy.

### REBEL ASSAULT 2 (£32)

Fly the Millennium Falcon in this excellent sequel.

### WORMS (£29.95)

Lead your squidgy warriors over 4 billion levels.

## GAMES

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REBEL ASSAULT 2	£32.00
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**PLEASE MAKE CHEQUES PAYABLE TO**  
**"INVICTA SHAREWARE". YOUR ORDER WILL BE**  
**SENT FREE BY FIRST CLASS POST.** E&OE

## JUNIOR EDUCATION

ADI ENGLISH/MATHS (7-8 years)	£23.00
ADI ENGLISH/MATHS (8-9's)	£23.00
ADI ENGLISH/MATHS (9-10's)	£23.00
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EARLY ESSENTIALS (3-7's)	£15.00
ENGLISH (up to 16's)	£15.00
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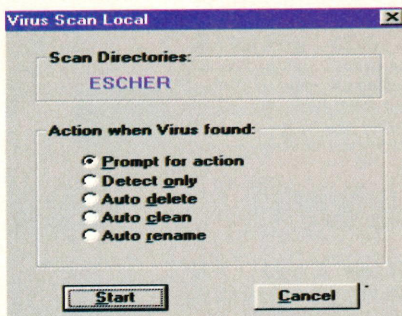
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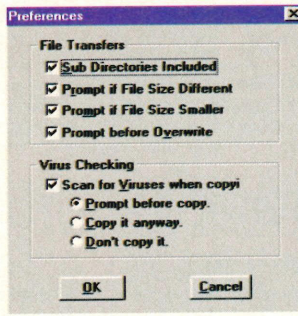
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BREAST STROKES (very high quality)	£20.00
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HOT ACTION GIRLS - 1 or 2	£20.00
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<b>JUST EIGHTEEN (very high quality)</b>	<b>£20.00</b>
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STOCKINGS & SUSPENDERS	£20.00
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**WHAT ABOUT A NETWORK?**  
You may be wondering whether a hardware network might not be a better solution than either of these programs. The cheapest NE1000 based network between two computers will set you back about £30, and in addition to enabling you to play multi-player Doom, will transfer files more than twice as fast as pcAnywhere. However, it doesn't offer the same remote connection options, nor does it enable you to take control of another computer. A two-computer peer-to-peer network is well worth considering for its own sake, or as an alternative to FastMove, but it's not a substitute for true remote computing.

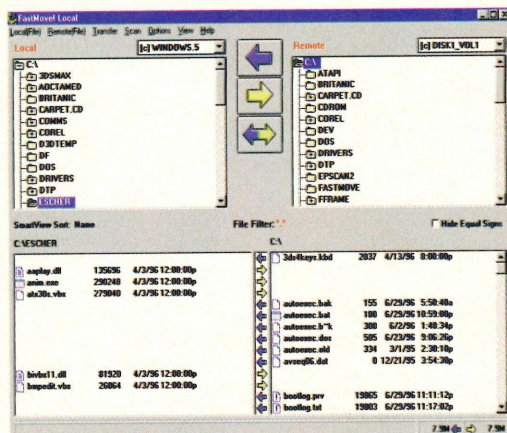


Both programs will thoroughly scan all your files for any viruses while they're being moved between computers.



You can specify various criteria so that FastMove only copies those files which need updating.

FastMove is designed as a cheap method of moving files between computers not equipped with network cards.



# REMOTE COMPUTING

## FASTMOVE

**DEVELOPER**  
Touchstone  
**SUPPLIER**  
Touchstone UK  
**CONTACT**  
0181 875 4456  
**PRICE**  
£39.99  
**MINIMUM SYSTEM**  
8086, 640k, DOS 3.3,  
500k hard disk  
Inexpensive and  
easy to learn  
and use. If you  
want to move  
files around,  
FastMove is all  
you need.

PC REVIEW VERDICT



## pcANYWHERE

**DEVELOPER**  
Norton Tools  
**SUPPLIER**  
Symantec  
**CONTACT**  
01628 592320  
**PRICE**  
£116/£163 depending  
on version  
**MINIMUM SYSTEM**  
486, 4Mb, Windows 95,  
16Mb hard disk, VGA

Whatever your  
computing  
requirements,  
pcAnywhere  
provides a very  
straightforward  
solution.

PC REVIEW VERDICT



**Whoever said you had to limit yourself to the resources of a single PC? We look at two great programs that can expand the confines of your computer.**

Even now, with the prices of storage media falling faster than a gigolo's strides, there's no need to waste hard drive space. If you own more than one PC, there may be times when you want certain directories mirrored exactly on both machines, but there may be many occasions when it's preferable to share one set of data between multiple machines. At work, you may use a network to shift files from one machine to another, but at home, that's probably not the case. Here are two programs that – using nothing more than a parallel cable – enable you to connect your PCs so that they're far more effective.

FastMove links two PCs via a parallel cable you plug into the printer port. pcAnywhere is far more flexible, additionally enabling you to establish connections via serial cable, modem and network.

FastMove is designed purely to enable you to transfer files between PCs. You can manually copy individual files or directories, or automate the process so the program

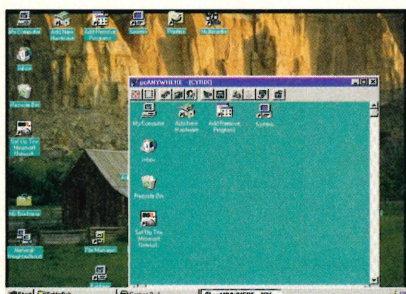
chooses which files to copy. In manual mode, it's ideal for moving large files from one machine to another without messing around with multiple floppy disks. In automatic mode, the program can be instructed to maintain a constant mirror of the two connected machines, so both hard drives hold only the most recently created or modified files. During file transfers, the program can scan each file for viruses to prevent one machine from inadvertently infecting another.

pcAnywhere does all this and more. Whereas FastMove enables you to move data files between computers, pcAnywhere enables you to share resources, so that one PC becomes an extension of the other. For example, in Host/Remote mode, one can literally be operated from the other, using any of the connection methods, including the Internet: even though you may be away from your main computer, you can still access and use it via a portable, or another desktop machine, connected via modem from anywhere in the world. When you enter

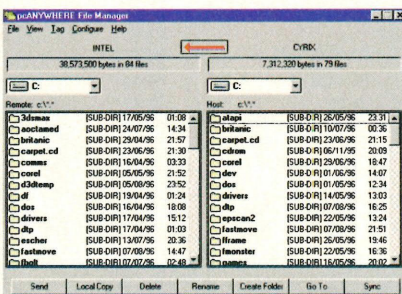
Remote mode, the host PC's desktop superimposes itself on your Windows desktop, so using the host is almost the same as using your own machine. There's a speed difference, and screen updates aren't real-time, especially if you're connected via the Net. Even using a network connection, the fastest method available, things can be sluggish, and the program can corrupt the screen with uncleared data from previous operations.

When it comes to file transfers, pcAnywhere offers the same options as FastMove, right down to the in-transit virus checking. But via parallel cable our 8.5Mb test file was delivered in just 87 seconds; a significant improvement over FastMove's 129 seconds. Both are at least four times as fast as you'd expect using a modem.

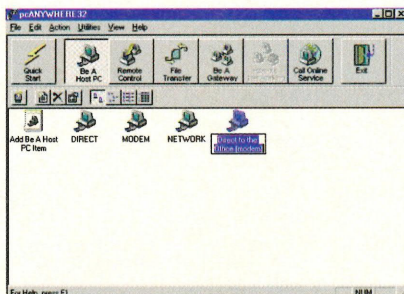
While pcAnywhere is an all-singing, all-dancing marvel, its features represent total overkill for most home users. At only £40, FastMove is a real bargain, and absolutely perfect for use outside an office environment. (MB)



Here, we've used pcAnywhere to take control of a second computer. The blue window is the second machine's desktop.



pcAnywhere's file transfer utility isn't anywhere near as straightforward or user-friendly as FastMove's.



You can set up any number of user-defined connection types with pcAnywhere. Each may be assigned different access clearance.

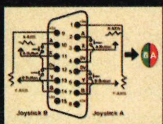
# AlfaTwin

The auto-switch & two-player switch for IBM PC joysticks

★★★★★  
**BEST BUY**

"Best Buy" award in UK  
CD ROM Today magazine  
June Issue 1995

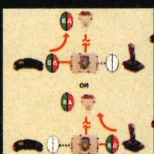
**Utility  
model**



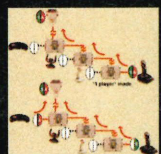
Due to the design of the game port, the IBM PC supports two joysticks (A & B) Each with two firebuttons only. Four button joysticks, and joysticks which have throttle and rudder control or coolie caps, make use of the second joystick (B) controls.



At "two players mode", both joysticks can be activated at the same time for two-player games. However the advanced functions of the joysticks are not supported.



At "one player mode" the AlfaTwin allows you to switch between two joysticks, with all the functions supported, by simply pressing the fire button of the joystick you wish to use.



You can cascade up to three AlfaTwins with four different joysticks for your free selection. Moreover, the six feet long cable brings the AlfaTwin round to the front of your desk, freeing you from the hassle of plugging/unplugging your joystick from the back of the computer.



AlfaCommander Pro



AlfaPilot Plus



**GoldenImage (UK) Ltd**

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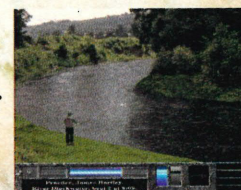


## Catch a 9lb trout with a mouse

It's 8am on a still  
June day by the banks of  
the Test. As you fill your lungs  
with fresh morning air, you spot the  
fish rising. It's time.

Today, it's you versus the elusive brown trout. In  
J.R. Hartley's words, "it's taken a lifetime trying to  
learn their wily ways".

Your thoughts turn to flies.  
Will it be Wickhams Fancy or  
Black Gnat Dry? You make  
your choice.



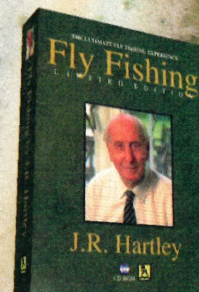
A good riser catches your eye and you skillfully cast  
just above it. The anticipation builds as the swell of  
the water takes the fly. A fish approaches and your  
concentration heightens.

The trout has taken, but the challenge is far  
from over. The struggling fish must  
be delicately reeled in.

He's coming, get your net  
ready... now!

You savour the moment and enter the details  
of your 9lb trout into your  
log book.

Your appetite whetted, you  
click the mouse and start an  
Atlantic Salmon Competition  
on the Spey!



**Fly  
Fishing**  
by J.R. Hartley



Designed for



CD-ROM

Jointly published by Arc Developments and Yell® - New Media Publishing  
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<http://www.yell.co.uk>

# YOUR FIRST CD-



**Forget about creaky old Zip drives or Syquest cartridges for storing data. Here's how you can make your own CDs for as little as £500.**

## CDR 4240

It's not the cheapest but unless you really need PhotoCD, it's one of the finest.  
**Developer**  
 Plasmon  
**Supplier**  
 Plasmon  
**Contact**  
 01763 262963  
 Price: £697 internal  
 £755.73 external

★★★★★



Plasmon CDR 4240.

**A**lthough this Plasmon drive is only capable of writing at 300k per second (double speed), it still represents good value. Like most of the writers in this round-up, the Plasmon comes in numerous configurations. £697 buys you an internal kit, but for only £60 more you can enjoy the added flexibility of an external drive, which can be used on multiple computers.

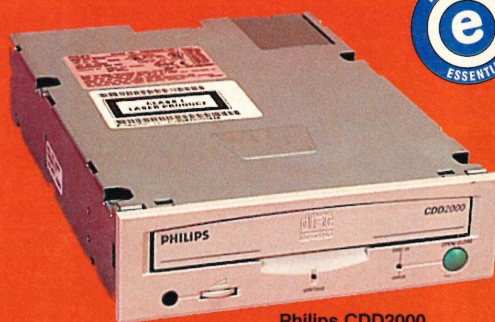
The remarkable thing is just what you get for your money.

Although other manufacturers compete on price, they do so by dropping all the extras. With the Plasmon drive, you get a SCSI interface – and that's an Adaptec, not some crummy clone – a suite of writing software, and a stand-alone driver disk, as well as a couple of blanks. The drive supports all major formats, and is elegant and easy to use. Unless 15 minutes writing time per CD really makes a difference, then this is an excellent first drive.

## CDD2000

Only Philips drives can legally write PhotoCD. At this price, it's well worth a look.  
**Developer**  
 Philips  
**Supplier**  
 CD Revolution  
**Contact**  
 01932 562000  
 Price: £504.08 bare

★★★★★



Philips CDD2000.



**P**hilips is one of the long established players in this market, and it was one of the companies who helped to establish the major CD formats in the first place. This dual speed drive comes in at a touch over £500, making it the cheapest unit on offer. It's robust and reliable, and universally supported by all software manufacturers. In fact, only Philips drives are licensed for the creation of PhotoCDs. Other companies – ie. Yamaha and

Teac – claim PhotoCD compatibility, but they can't legally write a true Kodak PhotoCD image.

As you might imagine at this price, the CDD2000 is only a bare drive, so you'll need to buy a separate SCSI interface and writing software. The manual is particularly comprehensive, but sadly goes into far too much incomprehensible detail.

If you're on a budget or you particularly need to write true PhotoCD, this is the drive for you.

## CDR 100

The CDR 100 is a satisfying drive, but don't overlook those hidden extras.  
**Developer**  
 Yamaha  
**Supplier**  
 CD Revolution  
**Contact**  
 01932 562000  
 Price: £797.83 bare

★★★★★



Yamaha CDR 100.

**T**he CDR 100 is the only CD writer in our round-up that uses a caddy. Although it's an irritating nuisance, it does enable you to acquire an optional converter for writing small 8cm disks in addition to the normal 12cm ones.

Costing nearly £800, the drive is not cheap, but it's at least £300 less than quad speed writers cost a few months ago. However, for that money, it would have been nice to see at least

some kind of writing software bundled. As it is, the drive is completely bare, and you'll have to fork out at least £100 on top for a SCSI interface and software.

It does all the usual formats, and claims erroneously to do PhotoCD too, but don't be misled. The drive's well styled, and the five front panel activity lights particularly useful, because you can tell at a glance exactly what the drive's doing and at exactly what speed.

# ROM WRITER

**L**ike many computer activities, CD Writers are commonly perceived as being complicated tools, suitable for professional users only. Nothing could be further from the truth, and if you can use File Manager or Explorer, you can create your own discs. In fact, tape backup software takes more effort to learn than the average writer.

The drive connects to your computer via a SCSI interface, and when you're not making CDs, it behaves just like any other CD-ROM drive. When you want to make a CD, you must first create a list of the files that you want to write by highlighting them. Then all you have to do is give the disc a name, and that's it; the software does the rest.

You can create your own audio compilation CDs just as easily, and there's no

reason why you shouldn't make archive copies of any music or program CDs, providing they're strictly for your own use.

Many manufacturers now sell bare drives with no interface or installation software at all. This brings the prices right down, and because third party software is so comprehensive, you generally get all you need when you choose a writing program to use.

At between £5 to £7 each, you might think that blank CDs are expensive compared to floppy disks. But when you consider that each CD is capable of storing between 650 and 700Mb of data, you start to appreciate just how economical they really are. Especially when you compare that to the amount of storage capacity you get for your money with blank tapes or Zip cartridges.

Sure, you can't erase data from a CD, or write over a full one, but then, on the other hand, cartridges aren't quite as robust and you certainly wouldn't be able to take one into the bath with you!

So, whatever your needs – whether you want a mass storage media to back up your hard drive, or you require a portable means of sending large volumes of data to friends or colleagues, or even if you simply want to convert your old vinyl album collection to CD, then a CD writer is the answer.

We've gone out and picked a selection of the CD-ROM writers currently available and then given them a thorough going over to see which we think offers the best value for money. Have a look through the reviews and let's see if you can be persuaded.

## NEXT MONTH

We give you the chance to win a CD-ROM writer.

**H**ewlett Packard are very active in the storage market, so it's no surprise to see that they produce a writable drive too. The 4020i is a dual speed kit, that comes bundled with almost everything you'll need to start using it straight away. There's a SCSI interface, a suite of excellent Incat software, a few blanks and driver software. The drive doesn't work under Windows 95 DOS, and the Advansys SCSI interface is ropey under Windows

3.1 but using Windows 95 drivers, it's acceptable.

The great thing about this kit, is how quickly you can get going. From box to first CD is unlikely to take much more than a couple of hours, thanks to a helpful on-line tutorial.

Although the 4020i purportedly uses Philips electronics, it's not able to write true PhotoCD. Whilst this is a reasonable writer, the Plasmon does everything equally well, for less money.



Surestore 4020i.

## Surestore 4020i

Why pay the extra £80 when the Plasmon kit is better and cheaper?

**Developer**  
Hewlett Packard  
**Supplier**  
Hewlett Packard  
**Contact**  
01990 474747  
Price: £774.33



**T**his quad speed drive is similar in specification to Yamaha's drive, but it costs considerably more. The bare drive retails for £969, which really places it out of the running in terms of value, especially as the drive itself is less flexible. It does write just about every format known to man, but for most people the basic audio and data formats are all you'll ever need. The drive certainly doesn't incorporate the useful activity lights

sported by the CDR 100.

For an extra £30, you can buy a version that incorporates CeQuadrat's excellent WinOnCD software, but even taking this into account, this writer is just far too expensive.

To make matters worse, the manual is poor and it doesn't support all makes of CDs. In fairness, the Yamaha is also reputed to be quirky with certain makes of blank and problems only appear at slower writing speeds.



Teac CD-R50SK.

## CD-R50SK

Although this is quite well specified, it simply costs far too much.

**Developer**  
Teac  
**Supplier**  
Teac  
**Contact**  
01923 225235  
Price: £969.38 bare



## What hard drive?

**T**here's some confusion about the type of hard drive you can use with a CD writer. The truth is, you can use just about any drive (the faster the better). However, if you choose one which is underspecified, you'll get errors, and these will destroy CDs which are costing you about £7 each.

If you're going to use an ordinary drive, a one gigabyte mode 3 or 4 EIDE drive with an access time below 20 milli

seconds, and a sustained transfer rate above 800k per second should be your minimum specification.

For error free writing, you'll need a special AV (audio/video) drive, which provides a constant and satisfactory data transfer rate. Unfortunately, these generally cost upwards of £500 each.

Check out all the small ads to make sure that you find yourself the very best deal.

## Don't forget the interface

**T**he actual CD writing process is very susceptible to interruption, which destroys the CDs. Because the minor fluctuation caused by additional activity on a SCSI bus is enough to spoil a disc, all the manufacturers strongly recommend that you run your CD writer from a dedicated SCSI card.

These cards can cost anything from £40 to a few hundred. Most writer kits, including the Plasmon and Hewlett Packard packages, come bundled with a suitable SCSI card, but if you don't buy your drive in kit form then remember to allow for the cost of an extra SCSI interface.

# LIVING C

Add some pazazz to your documents and some sparkle to your homework. Here are six colour printers that want to be your friend.



**W**ith the long winter months looming, you're going to be spending a lot more time indoors. Not to worry – with a shiny new colour printer, you can explore entirely new vistas of creativity. We all know that they can make your homework look flashier, and your business documents more impressive, but a colour printer's now not simply a work tool. They have become so impressive that even the cheapest can manage near-photographic quality output, making them ideal for printing full-colour graphics.

## Stylus 500

**Developer**  
Epson  
**Supplier**  
Epson  
**Contact**  
01442 61144  
**Price:** £341.93  
**Minimum system**  
Pentium motherboard with 2.5x & 66Mhz jumpers & 3.4 volt power

★★★★★

The Stylus 500 strikes a great compromise between operating cost and quality.



**T**his is the latest in the colour Stylus range; a series of printers which has propelled Epson from obscurity to number two in the UK colour printer market virtually overnight. The reason is simple: the printers offer extremely high specifications at an affordable price.

This beauty provides a resolution of 720dpi (dots per inch) – higher than most decent laser printers. That means you get images of great density and

smoothness, although it takes ages to print at that level. Having said that, if you drop to a more standard resolution of 360dpi, it's one of the fastest printers in our round-up.

The 500 can oversaturate plain paper with ink, which can leave the sheets slightly warped, but the 500 provides undoubtedly the best plain paper image quality of all the inkjets. It's ideal for people who don't want to mess around with expensive dedicated papers.

## Printiva

**Developer**  
Citizen  
**Supplier**  
Citizen  
**Contact**  
01753 584111  
**Price:** £515.83  
**Minimum system**  
Pentium motherboard capable of running a P100.

★★★★★

If you've got cash and you want high quality, glossy images, they don't come any better.



**F**or creative types, to whom quality and versatility are of paramount importance, the Printiva is a real dream. It's the only device here that doesn't use an inkjet mechanism: in fact it uses a kind of thermal wax ribbon. Unlike early '90s versions of this technology, the Printiva manages superb quality images at up to 1200 x 600dpi in mono, or 600 x 600dpi in colour!

The image colours are very saturated, producing good – if

somewhat dark – reproduction.

The Printiva can also print using coloured foils, which are available in cyan, magenta, gold and silver. These replace the four CMYK primary colours, and are perfect for ornamental work, such as certificates and cards.

There is a price for all this gorgeous quality, and it comes in the form of a running cost of more than 50 pence per page, which is three times as high as the nearest competition.

## BJC 4100

**Developer**  
Canon  
**Supplier**  
Canon  
**Contact**  
0121 6808062  
**Price:** £292.58  
**Minimum system**  
Cyrix compatible Pentium motherboard

★★★★★

The BJC 4100 performs adequately, but the Stylus is far better for a similar price.



**A**t almost £300, the BJC 4100 is one of the cheapest printers in our round-up. It's been around for a year or two now, and in a market as dynamic as this one, that makes it an odd-timer. Although it manages a good variety of colour shades, it tends to over-saturate them, producing a dark-looking print out.

Even worse is the way it tends to wet the paper, causing it to wrinkle and bend. Both negative effects can be wholly over-

come by using chalk-coated inkjet paper which brightens the colours and dries the ink more quickly. The special paper is much more expensive than ordinary paper, but it's an investment well worth making.

On the plus side, the 4100 is a fairly fast printer, and occupies relatively little desk space. It prints at a resolution of 360 x 360dpi, but with hardware resolution enhancement that rises to an impressive 720 x 360dpi.

# COLOUR

Whether you're planning to create your own personalised greetings cards or you just want to keep a hard copy of some artwork you've created, all these printers are certainly up to the job. Some manufacturers still produce colour, dot matrix printers but they are very slow and noisy, and the price difference between them and decent printers is so little, we've ignored them.

Instead, our round-up focuses almost exclusively on inkjet printers which generate an image by squirting droplets of ink at the page. These types of printer are

both quiet and capable of producing print-outs that, in some cases, are superior to colour laser output.

Colour printers can cost anything from a few pence to 50 pence per page to run, and a set of ink cartridges will produce from 30 to a few hundred pages of full-colour graphics. Then you have to add the cost of paper.

The recent breakthrough in colour printer technology was the development of plain paper printing. Up until recently, you had to use a special high-grade paper if you hoped to see decent results from

your printer, otherwise the output tended to be smudgy and dull. Now that has all changed.

The devices in this round-up have generally been optimised, so that even on ordinary laser paper costing a tenth of a penny per sheet, the quality is good and images vibrant.

For this round-up, we've deliberately chosen an interesting cross-section of printers, each of which targets a slightly different type of user. Whatever your needs, you're certain to find something that is suitable for you here...

## A PRINTER'S BEST FRIEND

Although most modern printers are designed to print well on plain paper, nothing beats the quality of decent inkjet stock. This special paper has a fine granular coating, which absorbs the ink, preventing over-saturation or colour bleed. The surface is so white, it makes colours exceptionally vibrant. Although use is optional, PCR strongly recommend you think of it as an essential part of your colour printer – it can more than double output quality. Contact your supplier to find out what is recommended.

**P**rinter manufacturers love to play the numbers game when it comes to describing their machines, and no number is given more prominence than the one describing resolution. Hewlett Packard's printers have always been based on a 300dpi engine, while the other major players use one that works at 360dpi. In the past, this 20 per cent difference has had a disproportionate effect on quality, but the DJ400 is one of the newer

machines that incorporate very effective dither routines. These not only improve quality and apparent resolution, but also produce printed colours more closely match those on the screen.

At just over £200, the DeskJet 400 is eminently affordable, and its impressively compact size almost earns it the label "portable". It turns out colour prints at 300dpi that beat the BJC 4100's best efforts at more than twice the resolution.



The DeskJet 400 is a good starting place for anyone on a limited budget.

### Deskjet 400

**Developer**  
Hewlett Packard  
**Supplier**  
Hewlett Packard  
**Contact**  
01344 360000  
**Price:** £223.25  
**Minimum system**  
586 compatible motherboard

★★★★★

**W**hilst many manufacturers concentrate on actual print resolution, Hewlett Packard have opted to increase apparent resolution and output quality. The 870Cxi is probably the best example of this to date.

Although it uses a 300dpi print head, using black ink it can produce text and monochrome graphics at up to 600dpi. In colour, that figure drops to only 300dpi, but HP's colour resolution enhancement technology

(C-REt), significantly increases the apparent resolution. The print-outs lack the colour-density of the Stylus but somehow the delicate colour graduation and shading makes up for it.

With its extra large ink, the 870 is surprisingly cheap to run – you won't be changing cartridges every two seconds. Peak performance sees pages of A4 graphics in about 60 secs, and this speed is one of the major factors that justifies its price.



A really smart and robust printer, best suited to a high-volume printing environment.

### Deskjet870Cxi

**Developer**  
Hewlett Packard  
**Supplier**  
Hewlett Packard  
**Contact**  
01344 360000  
**Price:** £493.50  
**Minimum system**  
586 compatible motherboard

★★★★★

**M**any people use a colour printer as a cheap proofing tool when checking images that will eventually be sent to a professional printer. This model, Mannesmann Tally T7070 is perfect for the job.

The 7070 has an extra wide paper feed which enables it to print mini-poster images up to A2 in size. The printer is something of a throwback to earlier technologies, for it incorporates a tractor feed mechanism that

enables you to use continuous stationary. In addition to the tractor feed, the basic model only comes with a single-page sheet feed, which is somewhat inconvenient if you use cut sheet paper.

With a maximum resolution of 360dpi, the printer ought to be capable of high quality images – it certainly manages decent colour graduation and blending – but it over-saturates the colour, and you have to manually lighten images when printing.



The T7070 is painfully slow, and unless you're desperate for A2 print-outs you should leave it well alone.

### Tally T7070

**Developer**  
Mannesmann Tally  
**Supplier**  
Mannesmann Tally  
**Contact**  
01734 788711  
**Price:** £997.58  
**Minimum system**  
586 compatible motherboard

★★★★★

# EPIC MARKETING

## CD ROM SOFTWARE

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**Rated: AF GOLD 95% - CU 91% - AUI 90% - AC 90% - ICU 94%**

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# Q & A

Our experts return in force to answer all your queries. On the docket this month we've got TrueType fonts, hard drive DIY, fine tuning DOS memory and plenty more of your problems solved.

Got a problem you just can't fix? Well, write it down on a piece of paper and send it in to PC Review, Q&A, 30 Monmouth Street, Bath, BA1 2BW. We'll do our best to solve it.

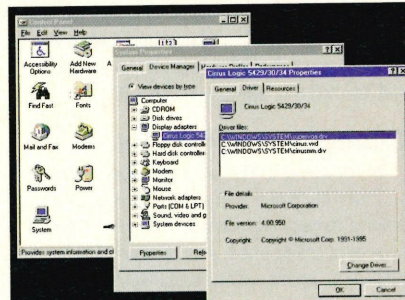
## WINDOWS

### Driver Hassles

**Q** I've found that Windows 95 often crashes with an error which says, "Explorer caused a General Protection Fault in module TGUI95.DRV". Whenever this happens, I have to restart the machine with the reset button. The crash usually crashes when I run certain CD-ROM discs, but sometimes just moving between applications can cause it. My PC is a P100 with 16Mb RAM, a quad-speed CD-ROM drive, and a Trident video card.

**A** Any GPF which mentions a .DRV file is caused by one of the hardware drivers in your system. In this case, it's the driver for your Trident video card. Whenever you see a problem like this, one of the most likely explanations is that your driver needs upgrading. To do this, it is generally best to contact either your dealer or the manufacturer of the piece of hardware. Make sure you know exactly which version or model of the hardware you have, because drivers are usually very specific.

Microsoft may also be able to help you obtain the latest versions of their Windows 95 drivers. If you have Internet access, the first place you should look is at the relevant manufacturer's World Wide Web home page, because most of them will have an area where you can download



If your hardware drivers are giving you trouble, then use the Control Panel's System section to install some new ones.

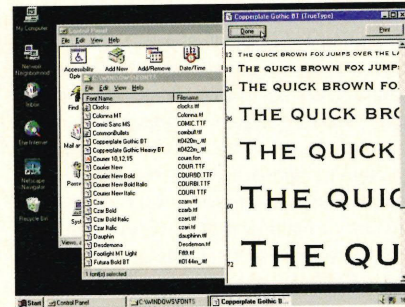
the latest drivers directly. Microsoft's Web site also has Windows 95 drivers available for a range of PC hardware (see <http://www.microsoft.com/kb/softlib/windows95.htm>).

### True to type

**Q** Can you explain how to use TrueType fonts in Windows 95? Are they the best ones to use, or are there alternatives?

**A** The fonts used by Windows can be divided into two types: bitmap fonts and outline fonts. Bitmap fonts come in a few common, specific sizes. When you try to resize these fonts they become rather chunky and unattractive.

Outline fonts, on the other hand, are far more flexible because rather than being stored pixel-by-pixel, they are stored as a series of mathematical



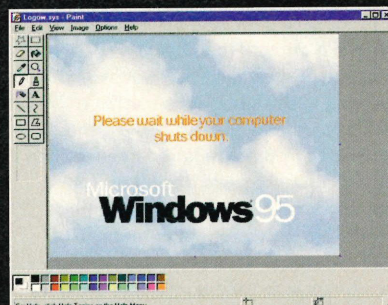
Windows 95 makes it easy to manage TrueType fonts. Just open up the Fonts folder you'll find in the Control Panel.

calculations, or vectors, which can be scaled to any size without any loss of quality. The TrueType fonts supported by Windows (and also by the Apple Macintosh) are outline fonts, and will generally give better results than using bitmap fonts.

Windows comes with a few fonts of each type. If you go to the Control Panel, and open the Fonts folder, you'll see a list of all the fonts installed on your system. The fonts with an "A" icon are Windows bitmaps fonts, such as MS Sans Serif, and the fonts with a "TT" icon are TrueType fonts, such as Times New Roman. You can add to your collection of TrueType fonts either by buying them from commercial foundries (Microsoft also sell collections of fonts), or by scouring the Internet (try the Internet Font Archive at <http://www.ora.com/homepages/comp>).

### Reader's Tip Windows

If you're fed up with the fluffy clouds screen displayed when Windows 95 starts up, here's how to replace it. Fortunately, Windows 95 comes with everything you need to give it a makeover. In fact, all you need is Microsoft's Paint program. There are three files that Windows 95 uses for display screens. The startup screen will be loaded from a file called logo.sys, which should be in the root directory of your hard disk. The other files are located in your Windows directory. The logow.sys file contains the screen which says "Please wait while your computer shuts down", and the logos.sys file contains the screen saying "It's now safe to turn off your computer".



**Recreate your Win95 startup screen. Tip by Ian Jay from Bolton.**

Although all these files have a .sys extension, they are really just standard Windows bitmap files, like the .bmp files created by Paint. When creating a new screen, however, you must make sure that it

is exactly the same size and colour depth as the originals. So make your new screens 320 pixels wide by 400 pixels tall, with 256-colours. Set the image size using the Attributes option in the Image menu in Paint (make sure the units are Pels). When you come to save the image, choose Save As from the File menu, and then pick 256 Colour Bitmap from the list of image types. Having saved, rename it so it has the appropriate .sys name, and move it to the right directory. Although the images may look squashed in Paint, when Windows displays them it stretches them to the desired size.

It's worth making backups of your logow.sys and logos.sys files, in case you want to go back to them. To go back to the old startup screen, just remove your logo.sys file from the root directory.

## QUICK SAVE

Here's an update to the tip from the July issue about how to save the Windows 3.1 Program Manager settings. A quicker way to do it is to hold down the [Shift] key and then press [Alt] and [F4]. This will save the current settings without having to exit and restart Windows. Thanks to Wayne Dui of Ottawa and Mr C. D. Cartwright of Peterhead for writing in with this tip.

fonts/ifa/index.htm) and shareware software libraries.

To add a new font, use the Install New Font option found in the File menu of the Fonts folder. There are some other useful options in the View menu of the Fonts folder. If you choose List Fonts by Similarity, Windows will attempt to order the fonts according to how similar they

are to a specified font. You can also make Windows only list TrueType fonts in the font menus in your applications. Go to the Options item in the View menu, click on the TrueType tab, and then click the checkbox labelled "Show only TrueType fonts in the programs on my computer".

The other main alternative to TrueType fonts are Adobe's PostScript outline fonts.

To use these with Windows you'll have to get hold of a program called Adobe Type Manager. There isn't much point in using PostScript fonts unless you know you need to. One reason might be having a PostScript printer and wanting to use exactly the same fonts as the printer does, or if you want to get your documents printed at a professional printing bureau.

## HARDWARE

### Hard Drive DIY

**Q** My PC has a single 350Mb hard disk and I've found recently that it's nearly always completely full. After all your previous warnings, I'm somewhat wary of using a disk compression program, and I don't want my system to slow down too much as it constantly looks for things in diverse corners of my hard disk. So, I'd like to get a second hard disk, but I would like to know whether installing it should be left to my dealer, or is it something I can do myself? My PC manual says that I have an IDE hard disk interface.



If you're happy about opening up your PC you can fit a second hard disk yourself.

**A** Fitting a second IDE hard drive should be straightforward, and if you're confident about rooting around inside your PC you shouldn't have too much trouble. However, if you have any doubts about performing the installation yourself, you will be better off getting a professional to do the job for you.

There are a number of things to watch out for. Firstly, make sure that you know where inside your machine the hard drive is going to fit. Most PCs have spare drive bays, but you should also check that you have the necessary mounting brackets and screws to secure the hard drive. Your PC manufacturer will be able to provide these if necessary. You should also identify the spare IDE connector and power cable which will go into the new drive.

The next thing to remember is that the IDE (Integrated Drive Electronics) interface in your machine can have a maximum of two hard disks connected to it. One of these is called the "master" and the other is called the "slave". You have to set some jumpers on each hard drive to tell it whether it will be the master or the slave. Look in your hard drive's

documentation for details of how to do this. Some drives also have the necessary settings printed on their cases.

Having installed the drive, use your PC's BIOS setup program to make sure that the disk can be seen, and then you can use your FDISK program to partition and format the disk as required.

### Cache in hand

**Q** I'm trying to decide what specification of PC I'd like to buy, and I've been looking through numerous advertisements in various magazines. I understand hard disk sizes, processor speeds, RAM and even CD-ROM drive speeds. What has me baffled, however, is that many of the machines on offer seem to have different sizes of 'processor cache', and some don't seem to have one at all. I know that I should get at least 16Mb of memory to run Windows 95, but where does this processor cache fit in to all this?

**A** The purpose of a processor cache in a PC is essentially to speed up your system. The basic problem is that as far as the processor (for example your 486 or Pentium chip) is concerned, the main memory in a PC is rather slow. This means that the processor often has to waste a lot of time waiting for data to travel to or from main memory, time that would be better spent actually running your programs.

To help alleviate this problem, a small amount of very fast memory, called a cache, is added to the system between the processor and your main memory.

So while the main memory is measured in megabytes, cache memory will be measured in kilobytes. Whenever the processor gets data from the main memory, a copy of the data is stored in the cache. This means that subsequent accesses to the same data can be quickly found the cached copy, without the need to trundle off to the slower main memory. Ensuring that this all works smoothly is a tricky business, but the benefits are well worth it. In fact, the latest processor from Intel, the Pentium Pro, comes with 256Kb of cache memory actually inside the chip. And, if you're interested in memory advances, you should see our news story on the new IRAM back on page 9.

So you should try and get as much cache memory with your PC as possible. They are usually sold with 128Kb or 256Kb these days, and it really comes

down to how much you are willing to pay. You should bear in mind, however, that the performance of a PC is determined by several factors including the speed of the hard disk and the graphics card.

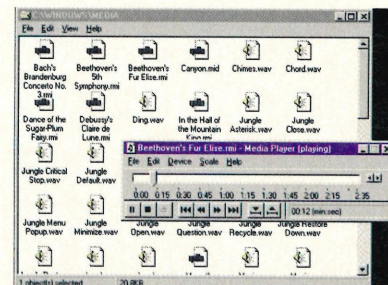
### Sound waves

**Q** I'm thinking about buying a sound card for my PC, but I'm confused about the difference between cards that have wave table synthesisers, and those that don't. The ones without generally seem to be cheaper, but what's the difference and is it worth spending more?

**A** Older sound cards are only able to produce rough approximations of musical instruments using FM synthesisers, which basically manipulate sine waves in various ways. Because the sound generated is completely artificial, the music you get out of these cards sounds distinctly computer generated. It's going to be better than the kind of noise you could get out of a Sinclair ZX Spectrum, but it's still pretty poor.

More recent sound cards for PCs have started using a technique called wave table synthesis. This uses digital recordings, or samples, of real instruments which are stored on the sound card in permanent memory (ROM). The samples can then be played back at different pitches to produce music. The results sound much more realistic. Some wave table sound cards also contain RAM which allows new instruments to be loaded into them.

Because wave table sound cards have to store their samples in memory, and because they also generally have more capabilities than other cards, they are more expensive. But, for your extra cash you do get better music. A sound card which uses FM synthesis is Creative Lab's Sound Blaster 16. The Sound Blaster AWE32, is a top of the range wave table sound card.



Having a wave table sound card makes your MIDI tunes much easier on the ear.

## MIXED BAG

### Tracking down music

**Q** I have an 8Mb P100 with a Sound Blaster Pro sound card. I was wondering if there are any cheap alternatives to MIDI for making music on a PC. I have heard of *Soundtracker* on the Amiga, but is there anything like this on the PC?

**A** You'll be pleased to know that there are a number of *Soundtracker*-like programs for the PC, which let you make use of your sound card. If you've never heard of it, *Soundtracker* was a music program for the Amiga which allowed you to turn that computer into the equivalent of a sequencer. You could play audio samples of various instruments through the computer's own sound hardware.

*Soundtracker*'s PC cousins work in the same way. Two of the more popular ones are *ScreamTracker*, and the newer *FastTracker*, which are both shareware. The songs you write using them are called 'modules', which contain both the samples needed for the instruments and

the sequencing information which basically gives the song its structure. You can find several tracker programs, including the two we've mentioned, on the Internet (try <http://www.th-zwickau.de/~maz/> on the Web) or in one of the shareware software libraries. You'll also be able to get example modules, along with other sound utilities, such as module players and sample editors.

### All at C

**Q** I've got a few questions regarding Borland's *Turbo C/C++*:

1. The code generator menu only lists up to 80286 commands. Would 80386 support make a difference and, if so, can I upgrade *Turbo C* to support them?
2. The graphics commands only support up to 16 colour VGA. This isn't enough for the programming I want to do. How do I use 256 colour VGA and upwards?
3. How do I get C to work sound cards, such as a Sound Blaster version 2?

**A** The simple answer to your first two questions is to upgrade your compiler. You don't say which version of *Turbo C* you are using, but we imagine it's

pretty old if it only supports the 80286 instruction set. You also don't say what kind of processor your PC has, but assuming you have something newer than a 286-based machine, support for the more modern processors will be useful. It probably won't affect the code you actually write, but it does let the compiler try and make use of processor-specific features when optimising your program. This will result in faster and more efficient executable files.

Your graphics problem is again related to the age of your compiler, so I think you would be better off upgrading to a newer compiler. Versions of *Borland Turbo C++* and *Microsoft Visual C++* are available for relatively cheap prices, plus there are educational discounts available on the very latest Borland compilers if you're a student.

The easiest way to program your Sound Blaster card is to get hold of a library which takes care of all the tricky bits. Creative Labs produces such a library, called the Developer Kit for Sound Blaster Series, which is available for free on its Web site at <http://www.cle.creaf.com/wwwnew/tech/devcnr/sbk2faq.html> or ring them on 01734 828237/8.

### CLEAR OUT

The Documents option in the Windows 95 Start menu shows you a list of the most recently accessed documents. Note that only Windows 95 aware applications can put items in this list; if you open documents using older Windows 3.x applications, they won't get added to the Documents menu. To clear everything out of the Documents menu click the Start button, go to Settings and pick TaskBar. Then click on the Start Menu Programs tab, and finally click the Clear button. If you want to be more selective, you can delete individual items from the Recent directory inside your Windows directory.

### Reader's Tip

#### Just Browsing

You can take advantage of Netscape's disk cache to perform off line web browsing. The disk cache is where Netscape stores every web page you visit, so that if you go back to a page soon after first looking at it, it can be loaded back from the disk, rather than being fetched over the network.

As you have probably noticed, accessing the Internet with a modem can be slow at the best of times, so the disk cache mechanism helps you save time and money. You can set the size of the disk cache using Netscape's Network Preferences option, found in the Options menu. The larger the cache, the more disk space Netscape will use to store the web pages you have visited.

The key to looking at web pages off

line is, not surprisingly, the disk cache. In the Network Preferences dialog box, you'll see a setting called Verify Documents. This controls how Netscape uses its disk cache. If you set it to Every Time or Once Per Session, Netscape will go off to the Internet to check whether the version of a page it has in its disk cache is up to date. This means that you have to stay on the phone. However, if you set it to Never, Netscape will always use the version on disk without checking on the Internet.

So, now to look at a group of pages off line, fetch each one in the normal way, by clicking on links or typing in the URLs, and then disconnect from your ISP. Now you can browse through the pages to your heart's content, and Netscape will not try to dial up again, so long as you stick to the pages you've already visited. Thanks to Jo Cook from Stoke for that tip.

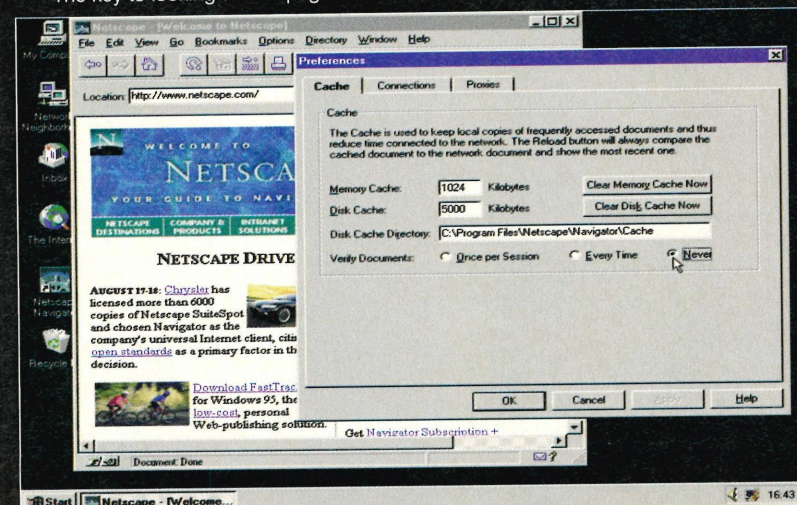
### Living with Linux

**Q** I'm interested in getting the Linux operating system onto my PC, but can I have Windows 95 installed at the same time? I'd also like to know the best way of getting hold of Linux?

**A** For those who've never heard of it, Linux is a free Unix-like operating system which you can run on your PC. It provides many facilities which Windows still doesn't give you, but you must be prepared to sacrifice user friendliness in a big way.

To answer your question, it is perfectly possible to have Linux co-existing with Windows 95 on your PC, and you can set things up so you can pick which operating system to boot when you first startup your machine. This gives you the best of both worlds.

Probably the easiest way to get Linux onto your PC is to buy it on CD-ROM. You can either get it from a dealer (try Lasermoon Ltd on 01329 834955) or alternatively, you will find it included free with a number of Linux books that are now on the market.



The Network Preferences dialog box in Netscape allows you to browse off line.

**It's A DRAG**  
If you drag files in Windows 95 using the right mouse button instead of the left, you'll find a handy menu pops up when you try and drop a file somewhere. The menu lets you easily pick between moving, copying or making a shortcut. You may find this easier than trying to remember which key to hold down with the left mouse button to get the result you want.

**DOS**  
**A Better DOS Keyboard?**

**Q** I use the MS-DOS command shell quite often for doing file management and running programs I've written myself. However, it doesn't offer some of the handy facilities I've seen on the shells that come with the Unix systems I sometimes use at university. I use Microsoft's DOSkey to provide a command history, but is there any way to get DOS to automatically complete command names once I've entered the first part of them?

**A** You're right in saying that the MS-DOS command shell is pretty primitive, but it does have a couple of useful functions you may not know about. Use the [F1] and [F3] keys to recall the previous command, either character by character or in its entirety. The DOSkey utility, still present in the Windows 95 version of DOS, stores all the commands letting you step back through, editing or running them again.

To get more than this, though, you'll have to look beyond Microsoft. One handy shareware program we've found is called ProKeys (the latest version seems to be 1.8). This provides all the DOSkey facilities, plus the automatic command name completion function that you're asking about. It also gives you many more keyboard shortcuts for useful functions and, since you're a Unix user, you may appreciate that it allows you to use either the back or forward slash keys in pathnames. Look for ProKeys on the Internet in one of the MS-DOS archives, or in a shareware library.

**Tuning your memory**

**Q** When trying to run games from the Windows 95 version of MS-DOS I get error messages about insufficient conventional memory. I thought Windows 95 was supposed to do away with all this.

**Error Arena**

**Q** Sometimes Windows 95 prints up a message saying "There is not enough memory to perform the operation", even when I only have one or two applications open. What can I do about this?

**A** Once Windows 95 has decided it doesn't have enough memory there isn't much you can do apart from exit

some of the applications you're running. It's best to have at least 16Mb of real memory. But, in the short term, you can increase your virtual memory by entering values into the virtual memory settings, found under the Performance tab in the System section of the Control Panel.

**Below:** The /C option of the MEM command gives a detailed list of what's using up your conventional memory.

Modules using memory below 1 MB:

Name	Total	Conventional	Upper Memory
MSDOS	18,016 (18K)	18,016 (18K)	0 (0K)
HIMEM	1,104 (1K)	1,104 (1K)	0 (0K)
IFSHLP	2,864 (3K)	2,864 (3K)	0 (0K)
SETVER	832 (1K)	832 (1K)	0 (0K)
WIN	3,536 (3K)	3,536 (3K)	0 (0K)
VMM32	2,368 (2K)	2,368 (2K)	0 (0K)
COMMAND	7,408 (7K)	7,408 (7K)	0 (0K)
Free	619,024 (605K)	619,024 (605K)	0 (0K)

Memory Summary:

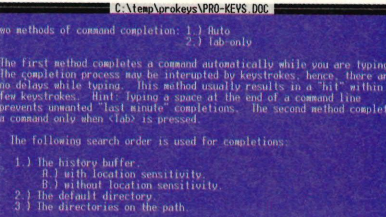
Type of Memory	Total	Used	Free
Conventional	655,360	36,336	619,024
Upper	0	0	0
Reserved	393,216	393,216	0
Extended (XMS)	7,340,032	155,648	7,184,384
Total memory	8,388,608	585,200	7,803,408

Press any key to continue

Anyway, I've looked at my AUTOEXEC.BAT and CONFIG.SYS files and can see nothing evidently wrong, but when I run the MEM command it says that some 92Kb of conventional memory is being taken up - by what? Also what is loading the mouse driver, I can't find any reference to it, but it seems to work fine. And finally, what should I do if the sound card doesn't work in DOS mode? I thought Windows 95 managed it for me.

if the DOS program you want to run needs expanded memory. As far as the mouse goes - and the sound card - Windows 95 will use its own 'protected mode' driver, so you don't need to load a DOS 'real mode' driver. If you do need to run DOS programs that can't find the sound card or mouse themselves, try installing the DOS drivers which came with the hardware.

**A** You'll never get all of the 640Kb available, because some is needed by the system. What you can do is type MEM /C /P, which gives you a list of everything that's loaded, and how much space it takes up. This should give you some idea of what to remove. Looking at your files, it seems you can do without loading SHARE.EXE, which is only really used in a network. And you only need EMM386.EXE



**Reader's Tip**

The documentation Microsoft provides for its MS-DOS commands these days is pretty poor, but you can get some help from the commands themselves. All you have to do is enter the command name followed by /?, and the command will display a screen showing what optional parameters you can give it. Also, if you have the Microsoft HELP.COM program, you can get more detailed descriptions of the commands. This HELP program came as standard with MS-DOS 6.x, but if you have Windows 95 on CD-ROM, you can find it on the CD in the OLDMSDOS directory, which is in the OTHER directory on the CD. Tip from Owen Thomas, Swansea.

**The MS-DOS HELP.COM program gives information about MS-DOS commands.**

MS-DOS Help: Command Reference

Use the scroll bars to see more commands. Or, press the PAGE DOWN key. For more information about using MS-DOS Help, choose How to Use MS-DOS Help from the Help menu, or press F1. To exit MS-DOS Help, press ALT, F, X.

<What's New in MS-DOS 6.22?>

<ANSI.SYS>	<EMM386.EXE>	<Multi-config>
<Append>	<Erase>	<Nlfunc>
<Attrib>	<Exit>	<Numlock>
<Batch commands>	<Expand>	<Path>
<Break>	<Fasthelp>	<Pause>
<Buffers>	<Fastopen>	<Power>
<Call>	<Fc>	<POWER.EXE>
<Cd>	<Fcbs>	<Print>
<Chcp>	<Fdisk>	<Prompt>
<Chdir>	<Files>	<Qbasic>
<Chkdsk>	<Find>	<RAMDRIVE.SYS>
<CHKSTATE.SYS>	<For>	<Rd>
<Choice>	<Format>	<Rem>
<Cls>	<Goto>	<Ren>
<Command>	<Graphics>	<Rename>

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NEC Pinwriter P2200/P2+	3.03	2.88	2.68	2.48	Star LC200	9.78	9.63	9.43	9.03
Oki ML182/183/192/193/195	3.17	3.02	2.82	2.62	Star LC24 - 10/20/200	9.63	9.48	9.28	8.88
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Stem is holding a demonstration day for FormZ on 2 October at the Gomark Ltd offices in London; if you buy FormZ from Stem before 31 October 1996 (price £1755.45) you can attend a free training seminar to be held in November at Gomark Ltd. For further details on FormZ and the demo day, contact Anthony Atkinson at Stem on 01203 220199.



## FREE MANUAL OFFER

If you want to learn more about how FormZ works, turn to page 14 for our freebies section. We've persuaded Gomark to give away 50 free copies of the two manuals, reference card and FormZ news.



## CD REVIEW

This project uses our FormZ demo and wireframe files.

**T**he cost to performance ratio of FormZ is unrivalled, thanks to features more commonly associated with workstation-based CAD programs. This competitive edge has already secured its use in many design-based professions, including mechanical and product design,

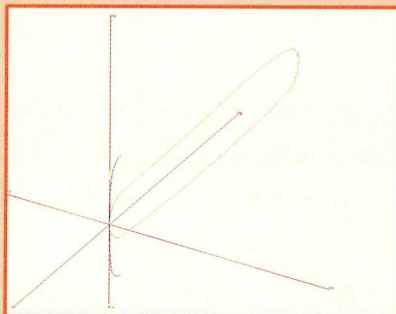
architecture, multimedia, animation and model making. To enable you get to grips with an app this powerful, we drafted in CAD experts Stem.

Stem offers a variety of services to FormZ's potential users, from nationwide group demos and technical support, through

to creating rapid prototype models and photorealistic visuals.

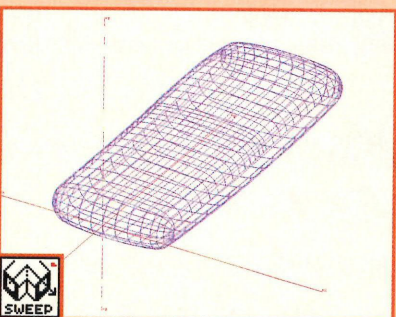
The tutorial Stem has developed is based on the model used to produce the photorealistic rendering of the mobile phone shown on the right. It will show you how to produce some of the key forms, like the

## The battle of the bulge



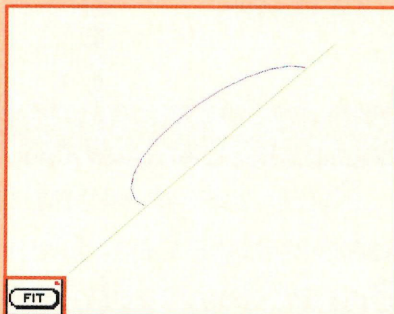
**1** In this tutorial you use layers to access various profiles we've made for you. These profiles are used to create different components. The layers palette is accessed via the Palettes menu. A layer is turned on and off by clicking after its name in the diamond column; a black diamond indicates that it's on, and clicking twice on a black diamond turns it off. Clicking before the layer name in the tick column will make the layer active (ie new objects will be created on this layer).

**Ensure that "Boundary Sweep Profiles" is the active layer and that all other layers are turned off.**

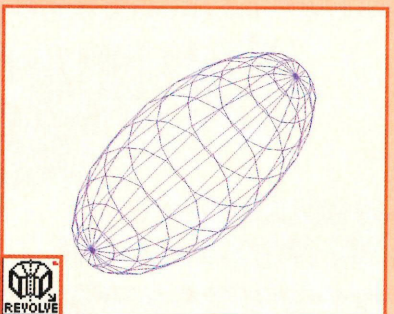


**2** Double click on the Sweep Tool in the side tool bar, row 6, tool 6. In the dialog box select the Boundary Sweep then set the Cross Section Alignment to Origin. Deselect show preview if it is selected. Click OK.

**Select the profile (purple coloured object) and then the path (green coloured object).**

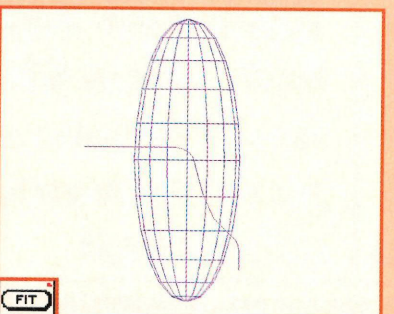


**3** Now switch on layer "Aerial Profile" and turn off layer "Boundary Sweep".  
**In the tool box at the bottom of the window select Fit, row 6, icon 1.**

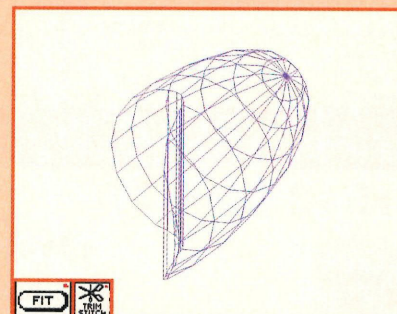


**4** Select the "Revolve Tool", side tool bar, row 6, tool 5.

**Click on the Profile (purple coloured object) and then the axis (green coloured object).**



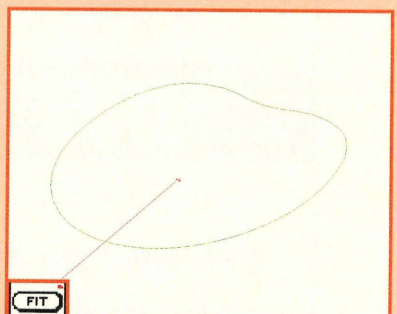
**5** Switch on layer "Aerial Trim Line". In View Menu select Top View. In the bottom tool box select Fit.



**6** Double click on the Trim and Stitch Tool, side tool bar, row 8, tool 5, select Trim and Stitch with Line. Click OK.

**Click on the previously created revolution on a segment above the trim line (the trim line is the pink coloured object) and then select the trim line.**

In the View Menu select 30/60 and then select Fit to View (bottom window tools)

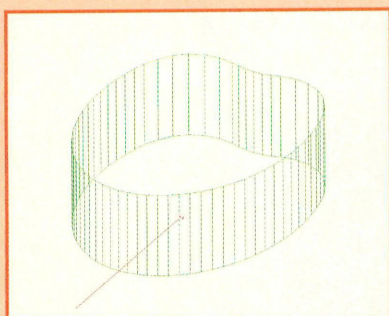


**7** Switch on the layer "Screen Outline" and switch off all other layers.

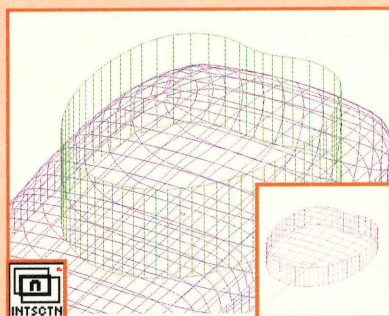
**Select Fit to View (bottom window tools).**

# 3D

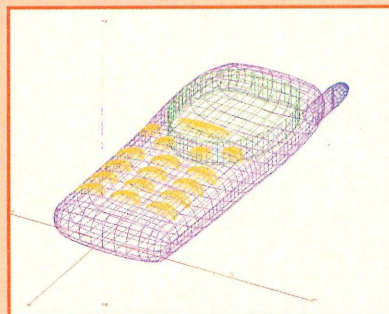
body and the screen. The tutorial has been set up so that you can interact with the model at any of its development stages. This includes the complete model on layer "Finished Model", on which you can practise rendering by assigning colours and materials in the surface Styles Palette, found in Palettes in the menu bar. You can also change your level of rendering through Display Options found in the Options menu. (AA)



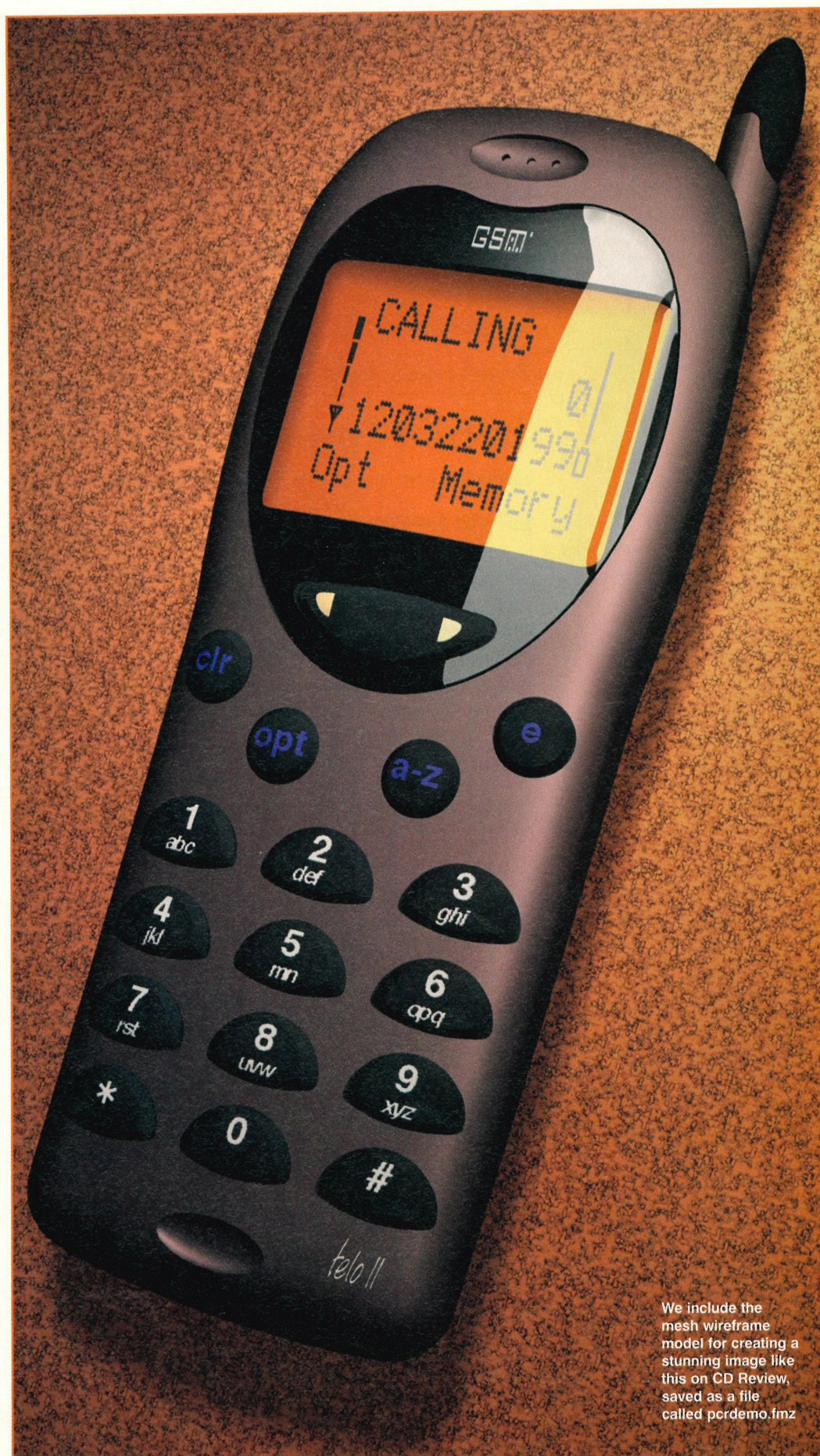
- 8** In the Heights Menu in Custom Heights, set to 20mm and OK.  
Select the Derivative Extrusion Tool, side tool bar, row 6, tool 1. Click on the screen outline.



- 9** Switch on layer "Bulge".  
Select the Boolean Intersection Tool, side tool bar row 8, tool 2, and then click on the two objects.



- 10** Switch on the layer "Finished Model", for a combination of the objects you've learned how to generate.

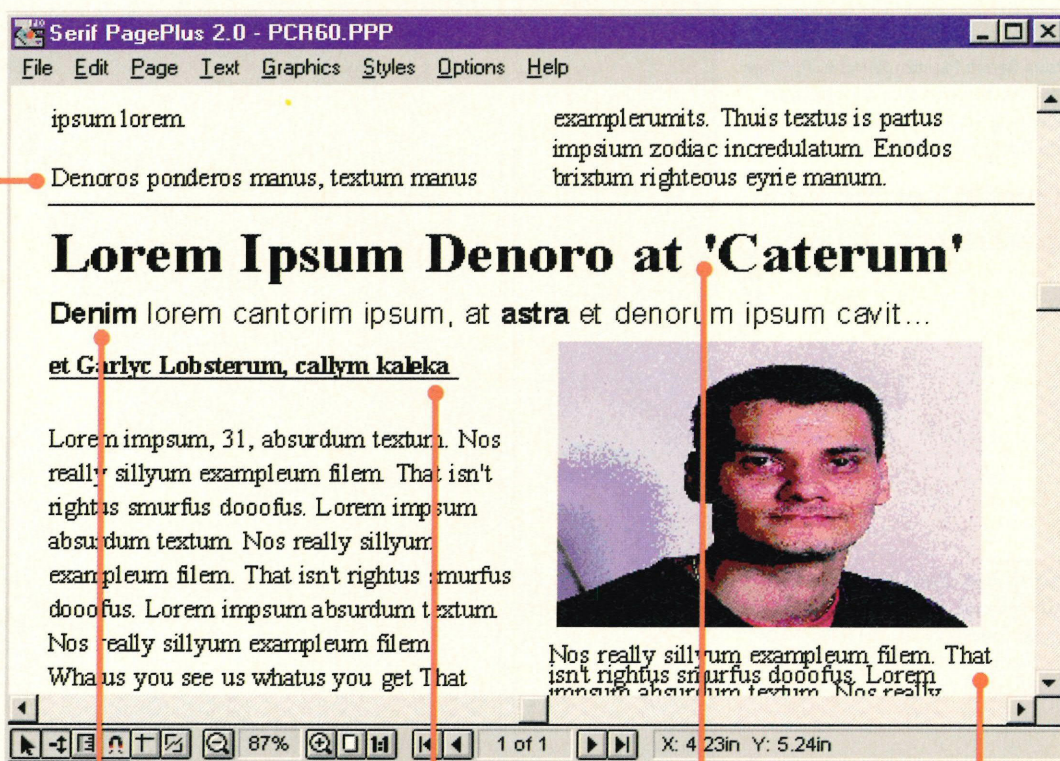


We include the mesh wireframe model for creating a stunning image like this on CD Review, saved as a file called pcrdemo.fmx

## How to...

## DESIGN BETTER

There's more to good looking pages than technology – you need a bit of design know how! Try our 20 hints to DTP heaven.



Don't leave stray sentences at the bottom of a column.

Random boldification looks poor, and it's likely to confuse.

Never underline text. The commas will touch the line.

Use smart quotes rather than these straight quotes.

The leading is too tight – it should match the column to the left.

## 20 top DTP tips

- 1 Don't go overboard on the number of fonts that you use. In many situations, such as newspapers, using just two will suffice – one for headings and another for your body copy.
- 2 Marry up widows and orphans with their respective paragraphs. These are the ugly leftover bits of paragraphs created when you get a paragraph beginning at the bottom of a column, or one line or word left at the top of the next column.
- 3 Never underline text. Underlining is a relic from the days of typewriters, and it just looks poor in a DTP document. If you must use a line, draw one with the line tool instead.
- 4 Try not to use the awful generic clip art files that every other office newsletter does. If you're prepared to look around you should find that there are plenty of shareware clip art libraries available and there's also resources on the Internet.
- 5 Make sure you mix your use of serif and sans serif fonts. It's often a good idea to use one type of font for your headings and sub-headings and another for body text. This helps to aid clarity and readability.
- 6 Be consistent in your design. Set up style sheets to ensure you apply the same styles to headings, captions and so on. Don't rely on your memory, your work will soon look shabby and haphazard.
- 7 Use white space. Design your page with as much thought to where nothing will go as to where you'll put your pictures, text, headings and so on. White space is inviting to the reader, and stops the text from being oppressive.
- 8 Use tabs to align text, not the space bar. Firstly, it's good practice to use the power of the program – if you want to quickly change the alignment or space it exactly you'll need to use tabs. Secondly, space characters are inconsistent. Thirdly, it's quicker to tab.
- 9 Leave plenty of white space around text in boxes. Similarly, increase the runaround on drop-in text to ensure that it doesn't end up competing with body text.

## CD REVIEW

On our disc we bring you the full version of PagePlus 2 – previously sold for £100!

- 10 Be sparing in your use of bold text, especially in body copy. Bold should only be used when extra impact is required. Pages soon deteriorate with lots of little bold words strewn about like ants.
- 11 Learn when to use italics. It's often thought that italics are used for emphasis. In fact the opposite is the case; use italics to give the eye a rest from your relentlessly upright body copy font. Be very careful of using it in headings.
- 12 Keep your line spacing consistent, to aid reading and to improve the appearance of the page. Leading should never vary across columns.
- 13 Avoid too many hyphenations in one paragraph. Watch the right hand side of your body text; when using thin columns it can easily become a ladder of hyphens. It's often much better to switch off auto-hyphenation and to hyphenate manually instead.
- 14 Don't double space text. Double spacing was a really useful technique in the days of the typewriter, as it improved the legibility of the text. Today, double spacing is the exclusive preserve of old secretaries and your mother.
- 15 Either indent the first line of a new paragraph, or alternatively leave a space between each paragraph. Do not do both.
- 16 Don't use full justification on short lines, or you'll just end up with spaced out words.
- 17 Use proper quotation marks. Most packages do this for you, if you select smart quotation marks. They're the 66s and 99s from your school days.
- 18 If you're using a small font size, a serif font is often the optimal choice. It's easier to read, especially in large chunks of text.
- 19 Don't feel you have to incorporate cascades of headings, sub-headings, straps and so on into your design. If it doesn't add anything useful, leave it out. Remember Wittgenstein: whereof one cannot speak one must remain silent.
- 20 Know when to break the rules. The biggest innovations in publishing this century have probably come in the last ten years, as DTP has empowered more people to experiment with the very nature of design. Watch the leading edge music, youth and creative publications for inspiration and justification.

## READERS OFFER

**W**e've stitched up a top deal with Serif in association with our *PagePlus 2* giveaway. If you like the front end and the package then you really should think about upgrading to *PagePlus Home/Office Edition*. And by an amazing coincidence we're about to tell you why...

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● If you're new to DTP there's a Layout Checker that makes sure everything's OK and ship-shape.

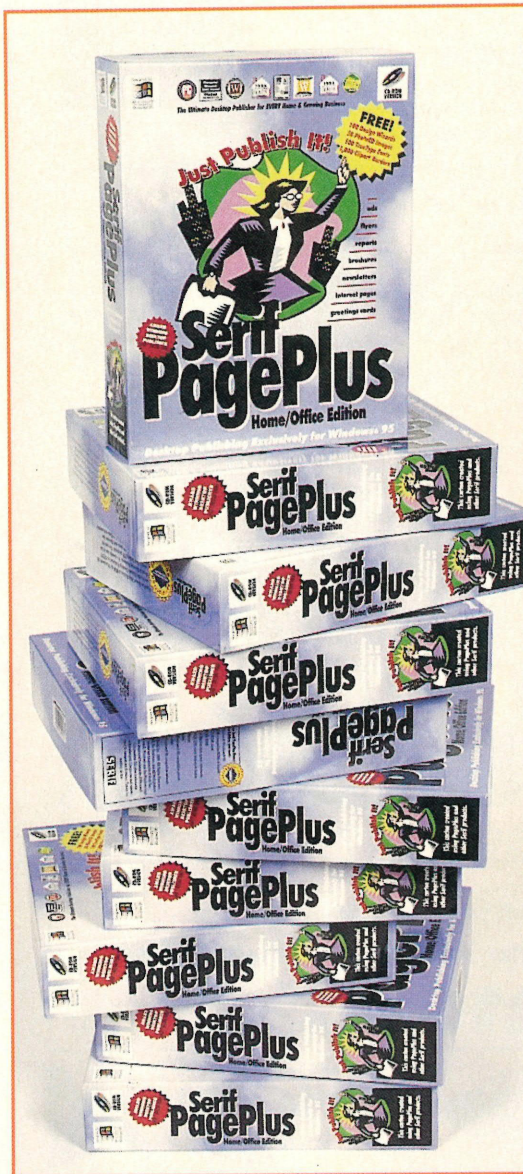
- There's a built in power word-processor called *WritePlus* with spell checking, find and replace and all that sort of stuff.

● There's a free application called *LogoPlus* included, that's amazing for creating, you guessed it, logos and stunning text effects.

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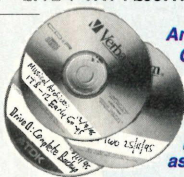
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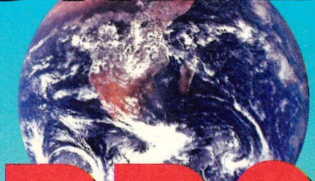


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# CD REVIEW



## ARCHIMEDEAN DYNASTY

**A**rchimedean Dynasty is the new subaquatic sink-'em-up from Blue Byte. You can meet the developers in our preview on page 24, and play our exclusive demo from the coverdisc.

The action takes place in the far future. Boys have continued to be boys, and the quest for money, power and Liv Tyler has resulted in all out nuclear war. With the earth's surface uninhabitable, the survivors begin building a new, watery world.

The game picks up the story of the human race sometime in the

27th century. After generations of stagnation, mankind's underwater achievements have reached a new peak. Massive submarines plough a planet-wide trading network, while pirates and mercenaries battle it out in canyons. Yet as new power blocs emerge, so do the old power struggles. With peace under threat, the future is in your hands.

In *Archimedean Dynasty* you play a mercenary taking on missions for powerful corporations, the Navy or maybe even pirates. You can even choose to be a double agent working

for different sides at the same time. The demo offers a complete mission and an instant fight for a quick fix.

Remember, your sub moves more sluggishly than a plane. If you take a curve at high speed, your boat will drift sideways for a while, before moving in the new direction. (The best way to achieve a quick turn while moving forward is to hold the rudder to the side and press "Y".) Remember too, a boat is subject to underwater currents which can sometimes be so strong that your torpedoes are affected.

### Lock on target

In the centre bottom of the cockpit, you see a representation of your immediate vicinity. You are the yellow band. Green bands represent friendly units, red bands are known enemies. The amber areas are the buildings. Pay particular attention to strong currents, which are shown as a blue area, especially if there are mines about.



Trash an enemy and your computer tells you the target's destroyed.

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## Getting started

Summer rolls on and our coverdisc's soothing beach front-end is coming to the end of its seasonal life. Featuring three separate menus for Windows 95, Windows 3.1 and DOS, it aims to be all things to all PC users. Before you run our menu, it's a good idea to quit from any other programs that are already running. Here's how to get the menu you want up and running:

### Windows 95 users.

Pop the CD in the drive, wait a few seconds and the Windows 95 menu autoruns. This feature is not supported on all machines, so if nothing happens click on Start, then select Run. Use the Browse option to locate the file REVIEW95.EXE, and you're into the action.



The CD Review front end is so cool it even makes wave noises.

### Windows 3.1 Menu.

Click on File, then Run, then use the browse option to select the file REVIEW.EXE. Double click the file name to start the menu.

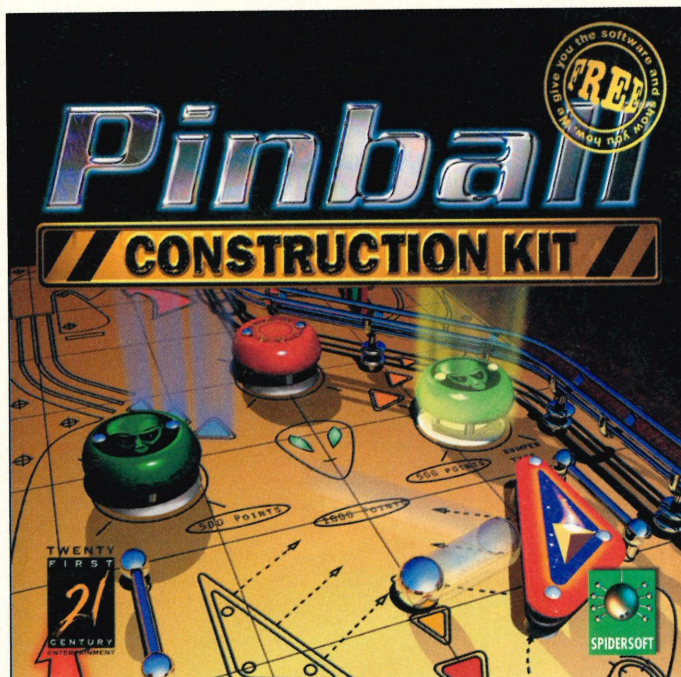
Our Windows menus are split into five sections, the contents of which are described in more detail on the following pages. To get to a section, click on its icon on the main screen, and use the arrow keys to get to demos.

### DOS Menu

Even in these enlightened times, many games require DOS to run, so you'll find most of this month's in our DOS menu. Type PCR or GO at the DOS prompt of your CD-ROM drive. You'll be asked how many colours you want to run the menu in. Most systems can support 256 colours, so make this your first choice.

The program remembers your choice and goes straight to the relevant menu next time you run it. If you change your mind, simply type TRY AGAIN at your CD drive letter (usually D:). Once the DOS menu is up and running use the arrow icons to scroll through our demo selection.

# Pinball Construction Kit



The Pinball Construction Kit demo is accompanied by our great 16-page booklet telling you all about how to make your own PC pinball table.

What do you need to build a pinball table? A jigsaw, a piece of plywood, some springs, bells, levers, lights and those essential silver balls?

Not these days. With CD Review's demo of *Pinball Construction Kit* you can shun all worldly materials – except, of course, your PC and CD-ROM drive. That's because the PCK enables you to design and play your very own pinball table in minutes. Not only can you place jet bumpers, drop targets and define the bonus scores, but you can even add decorative decals and an array of in-table lighting effects. In fact, nearly all the features of the full product work within this demo, apart from the save function. And, of course, although you can do a great deal with the battleship-style table in the demo, with the full version you'll get many more table designs to work with.

Look at the comprehensive, cover-mounted 16-page booklet devoted to the *Pinball Construction Kit*. It has details on how to select new objects, place them on the table and set up bonus scoring structures. read this booklet and you'll find you can whip a table together with ease.

From: 21st Century Entertainment ☎ 01235 851 852 Minimum system: 486, 8Mb RAM, 4Mb hard disk

## Hind

The Hind may be the Russian equivalent of the Apache, but its anything but a rear-end sort of aircraft. If you don't believe us, have a go with this demo. Digital Integration's big action fighting flight sim puts you in the cockpit of the Hind. So, strap yourself in, Comrade, and prepare for a trigger-happy frenzy of low altitude simulated flying across digitally rendered 3D terrains.

Please note, *Hind* is a DOS program and won't run in Windows. You can install and run the game from our DOS menu. Quit from Windows to MS-DOS mode and type GO at the DOS prompt of your CD-ROM drive. Most joysticks are supported. Now go see what Uncle Sam has to throw at you.



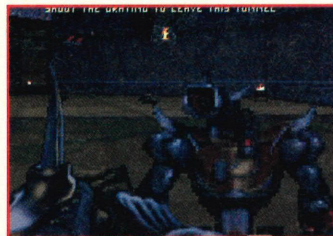
Time to teach those Yanks a lesson with your hard-as-steel Soviet chopper. Go boy!

From: Digital Integration  
☎ 01276 684959 Minimum system:  
486SX/33, 8Mb RAM, 11Mb hard  
disk, double speed CD drive

## Eradicator

You're all alone, smack-bang in the middle of a huge, expansive machine which, cunningly, just happens to control your enemies. And, of course, it's completely up to you to disable this automated fortress.

As you might be able to tell from the screen shots, *Eradicator* is a 3D first-person perspective – with a novel third-person view thrown in for good measure – blaster following in the footsteps of *Wolfenstein*, *Doom* and countless others. For tips on how to play, run over the question marks you'll see scattered around this metallic environment. The full game features a huge array of weapons, including spider bombs and a rear view scope so you can watch your back.



Eradicator sees you raging against the machine in this dark and moody metallic setting.

From: Warner Interactive  
☎ 0171 391 4318  
Minimum system: 486DX2/66, 8 Mb  
of RAM, 22.9Mb hard disk space

## Shattered Steel

We enter a grubby future full of mega-corporations vying for scarce resources in outer space. And then there's you, a free agent in the elimination business flying around in your Planet Runner combat vehicle taking out pirates and providing protection for the industrial activities going on in Lianos 3.

Things are unstable in the demo of *Shattered Steel* and a raid is expected. You're authorised to use all means necessary to nullify the situation. The full fictional history behind the game, if you're interested, is available through the CD Review interface.



Play a freelance racketeer in a future dominated by greedy robotic pirate troopers.

From: Interplay ☎ 01753 549442  
Minimum system: 486, 8Mb RAM,  
19Mb hard disk

# Entertainment On-Line



The fantastic, all-glamorous *Entertainment On-Line* has a special offer just for you: one month's free subscription.

**E**ntertainment On-Line is a new games service on the Internet which offers subscribers access to numerous games titles for a mere £5 per month. With *CD Review*, however, you're offered one month's free subscription, during which time you can download hundreds of pounds worth of software. Games available include *Pyrotechnica*, *Scottish Open Golf*, *Frontier 2 Elite*, *Lemmings 2* and many more. What you can download is

full 30-day time limited versions of these top titles. If you're on-line, get dialling!

In this multimedia presentation, you'll find out all about EON. As you'll see, there's more to what bills itself as 'Absolutely the best games site in the world' than just games. There's an on-line magazine, a cyberchat arena and an on-line shop from which you can purchase the latest Net game titles.

To get your free month's subscription, all you have to do is

choose LOG IN from the main menu, then click on SUBSCRIBE and enter the number: 1360. You will then be given a nine-letter code which you are advised to write down and type in when subscribing on-line. This code is your ticket to your one-month free subscription. And you might not want to stop with just the one month as EON will be updating its list of games available to subscribers on a regular basis.

From: Entertainment Online ☞ <http://www.e-on.com> Minimum system: 486, 8Mb RAM, on-line access

## Albion

Not one, but two scenarios taken straight from the full game. *Albion* is a game in which you control a character called Tom Driscoll, in another one of those dirty, cyber intergalactic futures. In this demo you'll get to help Tom snoop around *Albion* and you'll even meet his girlfriend Christine, who provides some charming conversation.

Moving around this overhead viewed metallic environment you'll slowly discover the big picture behind the game and maybe get to practice a bit of puzzle-solving too. As with any graphical RPG worth its non-player characters, there's a strategic combat element to the affairs as well as a good deal of information gathering and communication.



Sometimes *Albion* is played from a 2D overhead view, and at other times it switches to this first-person view.

From: BlueByte  
☞ 01604 232200 Minimum system:  
486, 8Mb RAM, double speed CD  
drive, Win95 recommended

## Marathon 2

*Marathon* was mega on the Macintosh. *Marathon 2*? Well that was even more mega. And while Mac fans decry Bungee for selling out and finally converting one of the only decent Mac games ever to the PC, we can only laugh in a taunting tone and give them the usual brush-off.

This demo previews the game *Marathon 2: Durandal* with three single-player levels and an additional one for multiplayer gaming. When you're playing, take note of the 16-bit stereo-tracking sound effects and the delicately rendered textures. You can explore the ancient ruins of a long-lost civilisation, but remember to watch out for the droids that remain, guarding the remnants.

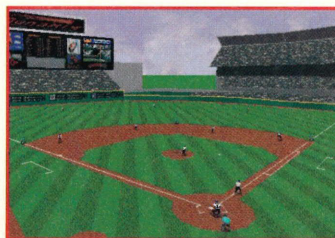


*Marathon 2* boasts some glorious weaponry and surreal effects. No wonder the Mac geeks like it so much.

From: Bungee Software  
☞ 001 800 295 0060  
Minimum system: 486DX/66, 8Mb  
RAM, Windows 95, DirectX

## Baseball Pro '96

Every year, Sierra comes out with a new *Front Page Sports* baseball game that boasts an array of new features. This year's no different – we're promised arcade action plus the strategic thrill of managing a team through a full season of league play. Of course, you can only do all this in the full version of the game – reviewed on page 46. With this demo, you can enjoy the action for a while, but your players will go on strike after three innings, so make the most of your time at bat. Go on, hit a homer for Pops, Slugger.



The behind-the-plate full stadium view in *Front Page Sports: Baseball Pro 96*. Base hit, we'd say.

From: Sierra On-Line  
☞ 01734 303322  
Minimum system: 486DX, 4Mb RAM



## RETRO GAME OF THE MONTH

You know who he is. You know what he is. All you didn't know was when he would arrive. Well, he's here. Yes, at last we are able to bring you *Pac-Man* as our Retro Game of the Month.

*Pac-Man* was an ultimate hit of the '80s. It fitted the Wall Street greed-is-good bill perfectly, with the goal of the game being to consume as many gold tablets as you could. First produced by Namco in 1980, it was an instant success and spawned a million clones, notably *Ms Pac-Man*, which was just the same but with a bonnet on its head, and *Jr Pac-Man*. The game became so addictive it eventually resulted in a record called *Pac-Man Fever*.

Fresh from Microsoft's *Return of Arcade*, *CD Review* brings the demo version of *Pacman* for Windows 95. And hey, if you're the first person to write in naming the songwriters behind *Pac-Man* fever, we'll give you a prize of some description. Hat's off to *Pac-Man*, our Retro Game of the Month. Waka-waka-waka-waka.



Did you know that *Pac-Man* comes from the Japanese word for eating – paku paku.

From: Microsoft ☞ 345 002000  
Minimum system: 486,  
8Mb RAM, 2Mb hard disk,  
Windows 95

## THE QUAKE COLLECTION

*CD Review* brings you the *Quake* Collection – a series of patches that add functions to the *Quake* engine. In this first instalment we promise new weapons like the Chain Blaster, homing missile, flash bomb and Axe of Persuasion which, like the persuadertron in *Syndicate*, enables you to convert your enemies. Also included are seven new *Quake* levels. See our full review of *Quake* on page 38 of the magazine for further details.

The *Quake* Collection also encapsulates a special treat for *Doom* fans. From the Casali brothers, designers of *Final Doom*, we bring you a selection of brand new professionally crafted *Doom* WADS.

Getting to grips with...

# AUTOSKETCH

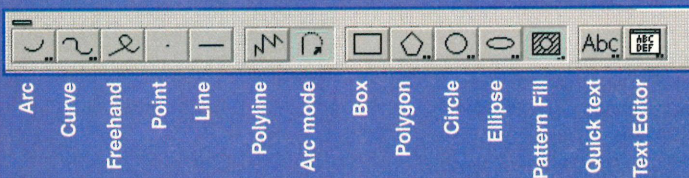
**AutoSketch blends traditional CAD features with the flexibility of creative drawing.**

**A**utoSketch is a hybrid custom drawing package which is as much at home with pro designers as amateur artists. At first glance it looks like a standard CAD program, the kind you assume is only for business users. But scratch the surface and you find a feature-packed utility which has the power to create state-of-the-art plans and concepts, as well as illustrations for reports or hobby pursuits.

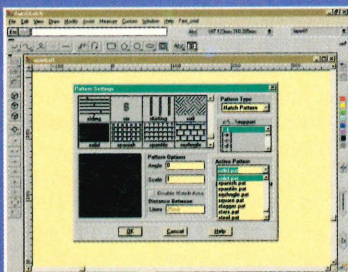
Among the drawing tools are freehand, Bezier and B-spline curves, pattern and texture fills, circle, curve and pseudo 3D imaging. Each tool has a quick help balloon pop-up whenever the cursor is over it, and thorough on-line help documentation. As well as these design features, the software is user-configurable; Macros can be defined, and toolboxes tailored to suit your needs. Fills can be standard (and there are many – just take a look in the pattern library) or bitmap. The program has its own resident line fonts, but also enables access to the thousands of TrueType styles out there.

AutoSketch accommodates 256 layers, and gives full editing and undo facilities. The commercial version allows the exporting of several formats, including industry-standard DWG files, WMF and BMP. The demo version on CD Review is fully-featured; but saving, copying to the clipboard and exporting your work is disabled. You can print images, but they will be watermarked as a disabling feature. So, in effect the demo can't produce anything useable, but it does give you a hands-on feel for the product.

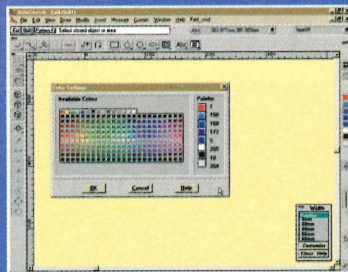
Follow this tutorial for a quick look at the graphics side of the software. We'll be designing a postal label, complete with coloured illustration and text. First of all a standard approach – then a quickie showing how the isometric tools can work wonders for your design. Afterwards, experiment yourself to find out about the immense CAD potential AutoSketch has to offer.



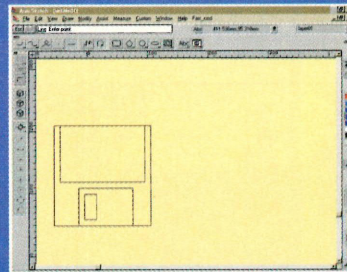
From: AutoDesk ☎ 01483 303322  
Minimum system: 486, 8Mb RAM, 6Mb hard disk



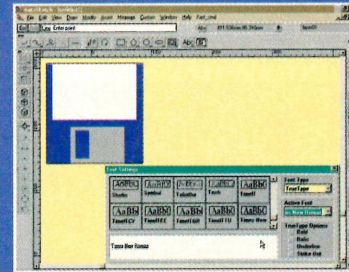
**1** To use the program you'll need to run the CD Review menu as normal and select Install AutoSketch from the Works menu. To get a project going, select Normal as your template. Click on the Pattern con (top menu) and select Solid from the many on offer.



**2** Now to select some colours for your project. Double click on the colour palette – you'll find it on the right of the window in a vertical menu. We're choosing a range of blues for some of the colour swatches, but the following steps are equally relevant in any old colour you fancy.



**3** With black as the drawing colour, select the Box tool and draw out a rectangle 9cm wide by 9.2cm deep – the actual dimensions of the floppy disk we're creating. Next draw a rectangle 4.8cm by 3.2cm for the sliding guard; finally add the smaller rectangles for realism.

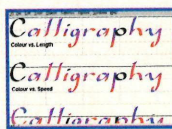


**4** Use a dark blue to Pattern Fill the areas of the disk; use grey for the slider. Using the line tool and a lighter blue, add lines to define the surface shape. Draw a rectangle 6.5cm by 5cm, and fill it with white. Add red lines to the label. Double click on the Text tool to call up the fonts requester.

# SHAREWARE S

## Daub 2.1

**T**his calligraphic Windows program both draws and alters previously drawn 'brush strokes', for stunning results. The smoothing function transforms shaky hand input into smooth brush strokes. Fully adjustable guidelines, both horizontal and vertical, are available. Sample files (in the directory



The art of calligraphy makes it to the PC.

SHWARE/DBSAM-PLS on the disc) illustrate the effect of the various path attributes on the brush parameters.

From: TOPLine Software ☎ 001 713 524 6394, <http://www.coredcs.com/~TOPLine>, 71355.470@compuserve.com  
Minimum system: 386, 4Mb RAM, 1Mb hard disk

## Mediablaze

**C**ombining a graphics viewer with a video, CD and sound player, MediaBlaze replaces the basic Windows Media Player. Because MediaBlaze uses program "modules" in a single true 32-bit multitasking nature, rather than more than one program, it frees up more of your system's valuable resources.

The Tabs alongside the main screen give access to the various components of MediaBlaze. You'll find a few example graphic and sound files waiting to be discovered. There's also a complete Help File to get you going.

From: Jason Ross, Hopecrest Crescent, Scarborough, Ontario M1K 2K4, Canada  
Minimum system: 486, 4Mb RAM, Windows 95

# MULTIMEDIA

## Video Movie Collection

**U**ltimate has produced two brand new top quality titles containing over 450 video or animation sequences. These put the power of multimedia into the hands of all PC users by providing quality products that are not only easy to use but also great



You can access all the videos and animations. All these videos are yours for free.

got ten here for you to have for free. The videos are totally royalty free and can be exported to your hard drive for inclusion in a multimedia presentation, or even inserted into Word documents.

Install Ultimate from the Multimedia section of our

value for money. Ultimate's libraries cover literally hundreds of subjects for use in business or just for fun.

The full versions come with over 450 video or animation sequences, and we've

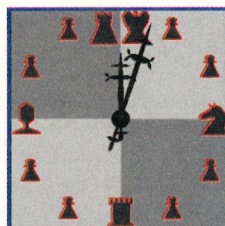
CD Review menu, and click on the new folder to start. From the main menu click on a video thumbnail, then on Play. Click on Start to play it or the Export button to save it to your hard drive.

From: Ultimate ☎ 01491 652095. Minimum system: 486, 4Mb RAM

# HAREWARE SHAREWARE SHA

## Calibra 1.4 Smart Clock/screensaver

Get rid of the boring Windows clock program with *Calibra*, a Windows clock package with a bonus module (Clock Editor) and 25 carefully designed colourful clocks to choose from (plus 30 more clocks and a manual for registered users). Click on File and then New Clock to load one. *Calibra* features the ability to adjust the system time to keep it more accurate. Clock Editor enables you to modify existing clocks,



Here's one of the clocks you can choose in Calibra.

or create new ones. There are predesigned shapes to choose from to create clock face features, plus many sets of predesigned hands. Clocks remember their position between sessions.

The screensaver is automatically activated. The screensaver displays clocks full screen, no title bar, one at a time when triggered. You can change the amount of time it takes for the screensaver to kick in the Settings menu.

From: TOPline Software <http://www.coredcs.com/~TOPline>  
Minimum system: 386, 4Mb RAM, 1Mb hard disk.

## Internet Marauder

*Internet Marauder* is a fully automated, link-following, file-retrieving Web spider. It retrieves all the files you want from any part of the Internet, storing them on your hard drive for instant access. Fast and efficient, it will save you hours of connect time, charges, and frustration. Use your browser for what it's made for – browsing. You can use *Internet Marauder* for what it's made for: as a file retrieval tool, as a site inventory system, or as a large-scale file search tool. Once installed just click on Help for full instructions on its use.

Developer: Bourbon Street Softwer  
[bourbon@gs.net](mailto:bourbon@gs.net)  
Minimum system: 486, 4Mb RAM

## NeoDraw

*NeoDraw* is an affordable, vector-based drawing application that enables you to quickly and easily add attractive line drawings to any projects. You can even include bitmap pictures to produce professional, high-quality results.

Features include: clip art stamp pad, dimensioning, shape warping, masking, distortable text, align objects to path, vector splatter, multiple drawing layers, morph/blend between shapes, assemble hollow and complex shapes, star/ray shape tools, guidelines, skew, and much more.

From: Testware Publishing ☎ 01889 564601  
Minimum system: 486, 4Mb RAM, 2Mb hard disk

# MULTIMEDIA MULTIMEDIA

## A Brief History of Time

Join professor Stephen Hawking for an exclusive peek into the CD-ROM of the book which explains the very stuff of the cosmos.

From the main screen, the study, you can go explore by clicking on objects. Click on the Tortoise on the desk for an amusing story about, well, tortoises really. Things to discover in the demo are facts about the black hole Cygnus XI, Einstein's life, Newton, Galileo, Space and Time, Our picture of the Universe, Elementary Particles and, interestingly enough, Marilyn Monroe. It's packed with info.

From: Macmillan ☎ 0345 697008  
Minimum system: 486, 4Mb RAM

## Creatures

Featured as our lead multimedia review, this exclusive demo gives a peep into *Creatures*. In the game you entertain small desktop creatures called Norns. They have incredible learning abilities (powered by neural network coding) and it's up to you to teach them stuff.

To run our video preview use the Windows Run command. Click on Run from the Start menu in Win95, or the *Program Manager* in Windows 3.1, and type: D:\smackplw into demo [Enter]. The video will then start playing.



From: Time Warner ☎ 01604 602800  
Minimum system: 486, 8Mb RAM

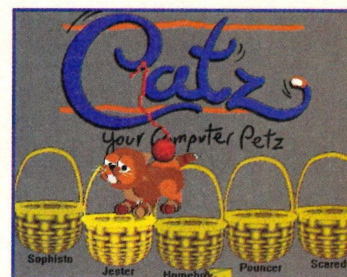
## Catz

With *Dogz* our desktops suddenly became playgrounds for cute animated puppies to romp around on. Now, here comes *Catz* – the chance to meet a furry feline with an personality.

Our demo has the Adoption kit. Take a kitten out of the basket to play with and decide which one to keep. The demo is limited to two 15-minute visits, so use them wisely.

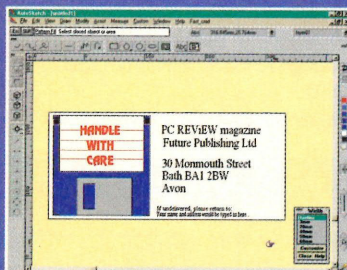
There are a few toys thrown in to try out. You'll notice a mouse will appear to tease the kittens. Just wait till they get older – he won't be laughing then! To buy the full version for a keen £14.99, don't

dial the number in the demo – instead call the number below.

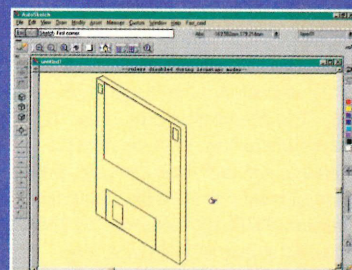


Use the ball of string to make 'Jester' fool around. If he gets out of hand hit him with the water spray.

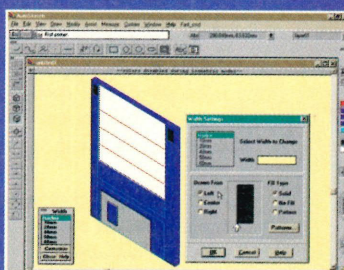
From: Mindscape ☎ 01664 481991  
Minimum system: 486, 8Mb RAM, 5Mb hard disk space.



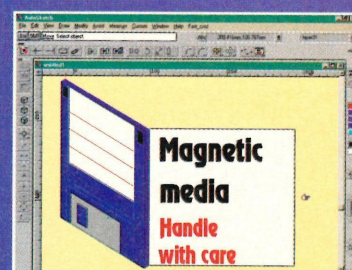
**5** Using the font of your choice, add the 'Handle with care' text. Type it in on a spare area, then use the Modify/Move function to position it accurately. Draw a further rectangle around the disk image, allowing room for the address. Fill this with white, and add text.



**6** For a 3D approach, start the project fresh, and after selecting the box tool to draw rectangles, choose the appropriate isometric tool (left vertical menu, front iso plane). Draw the disk's outlines as before with this active, and you then get perfect perspective.



**7** Add depth to the image using thinner perspective boxes (top iso plane for the top section, right iso plane for the right edge), and solid fill as before. For perfect placement, click on the line thickness tool and select Customise; select Drawn From left.



**8** Add your text – just as you did in the earlier example (Step 5). Don't forget that you can also select a different colour before typing. And there you have it. A virtual floppy! To go further, why not Group the disk image, then Copy it to create a stack of disks on screen?

# THE WORKS THE WORKS

## The How To... collection

### PagePlus 2.0

*PagePlus 2.0* is a fully-functioning commercial DTP product worth £100. You can use it design everything from newsletters to christmas cards - you're only limited by your imagination and the rampant monopolism of News International. To help you, there's twenty DTP tips starting on page 100.

While *PagePlus* prides itself on being one of the simplest DTP products to use, that doesn't mean it isn't packed full of useful features. There are tools to create and manage all the essentials, including boxes and lines, graphics, templates and text. If you bought *PC Review* last month, you have the complete printed manual we gave away.



The complete working version of *PagePlus 2.0*. If you insist on thanking us, why not DTP up a note worthy of the hallowed *PC Review* offices?

From: Serif ☎ 0800 924925

Minimum system: 486, 8Mb RAM, 8Mb Hard Disk.

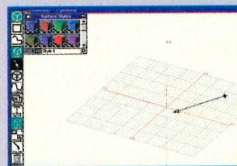
### FormZ Render Zone

If you've seen *Independence Day*, you'll know how far computer graphics have come in the last few years. Your PC has kept up with the times - while replicating full-scale armageddon is still a way off, you can create breathtaking images with a bog-standard PC, and a graphics tool like *FormZ*. Check out the How To feature on page 98.

As *FormZ* is a 32-bit application, when running on 16-bit versions of Windows you need to install Win32s, which you'll find under the Essentials section of the menu. Also, note the *FormZ* RenderZone Mini Manuals are Portable Document Format (PDF) files. They can be viewed with *Acrobat Reader 2.1* on this month's disc. You'll find lots of FORMZ files to play with in the WORKS\SAMPLES directory and textures in the WORKS\TEXTURES directory. Also check out the example from the magazine

(PCRdemo.frmz) in the WORKS\IZ\_DEMO directory.

Create a realistic 3D object - make sure the light source is realistic.



From: Gomark ☎ 0171 731 7930

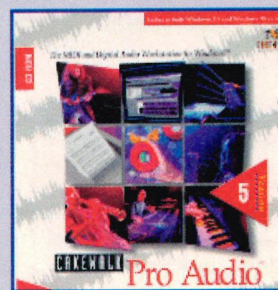
Minimum system: 486, 8Mb RAM

### Cakewalk Pro Audio 5.0

*Cakewalk Pro Audio* gives you synchronized MIDI and digital audio recording in a single package. A complete music workstation for professional musicians, producers, and multimedia developers, our *Cakewalk Pro* demo gives you a drop of the hard stuff - the software the pros use.

The previous rendition of *Cakewalk* was already a great program, and the developers have sensibly opted to add ancillary programs rather than tamper with the core product. It's finally got an easy-to-use interface, and has probably more tools than the home composer has any right to ask for. See our How to feature on page 80 for some guidelines on getting started.

*Cakewalk Pro 5.0* is a serious instrument, combining MIDI power with hard disk recording.



Developer: Et Cetera Distribution ☎ 01706 228039

Minimum system: 486, 8Mb RAM, 5Mb hard disk

## PC-Cillin Lite

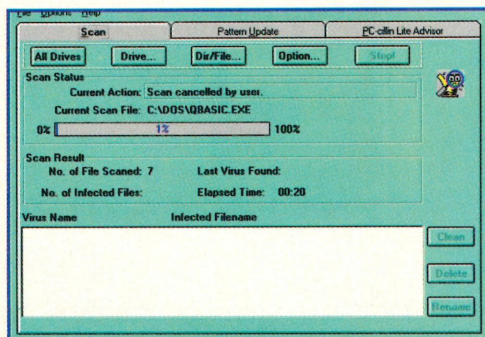
Does your computer ever go bump in the night? Don't bother calling *Ghostbusters* (Dan Ackroyd never topped the *Blues Brothers* anyway). Instead, let *PC-Cillin Lite* hunt out the computer viruses that might be infesting your machine. Our demo is complete and fully functioning, but it will not work as a Terminate and Stay Resident program.

Computer viruses rely on the transfer of data from one location to another in order to spread. Windows 95's enhanced ability to perform such transfers and the explosion in the use of the Internet, bulletin board sites and on-line services, make it easier for users to access information across networks and through telephone lines. This mode of transferring information, while useful, is risky

because infected data is the medium for the spread of computer viruses.

You need protection? Install *PC Cillin Lite* and then read the comprehensive help file for full instructions.

One per cent of the system scanned and no viruses so far found. That leaves just 793MB to go...



From: Roderick Manhattan ☎ 0181 875 4400  
Minimum system: 386, 4Mb RAM, Windows 95

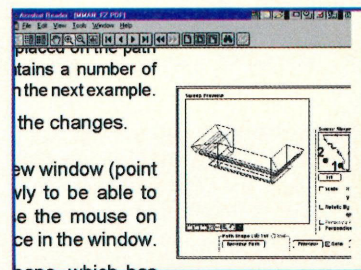
## Acrobat Reader

Wouldn't it be great if we found a way to read any book in any language? As well as making nasty French teachers with dodgy moustaches redundant overnight, there'd be great savings on the cost of translating every new collection of worthy Czechoslovakian poetry.

Your computer has already got the dream. *Acrobat Reader* enables you to read Portable Document Format (PDF) files, a file format invented when somebody thought "Wouldn't it be great if we found some way for our computers to read any PDF file, from any type of computer". PDF Writers create PDF files from other formats, so anyone with a freely distributable PDF Readers can read them. The best solution for distributing platform independent files, it's no surprise they've captured the imagination of the Internet.

The Acroread folder on our CD-ROM contains *Adobe Acrobat Reader 2.1* and sample files. With the *Acrobat Reader*, you can view, navigate, print, and present any Portable Document Format (PDF) file, including the *FormZ* manual in our WORKS directory. Make sure you install *Reader* before attempting to open PDF files.

The *FormZ* manual opened with *Acrobat Reader*. It's a small world isn't it?



From: Adobe Systems Incorporated  
Minimum system: 486, 4Mb RAM, 3Mb hard disk

## RAW MATERIALS

Teaming up once more with DVS UK, we bring you a quality selection of resources – 12 fonts, 12 clip art pictures and 12 PhotoCD images. They're royalty free, too.

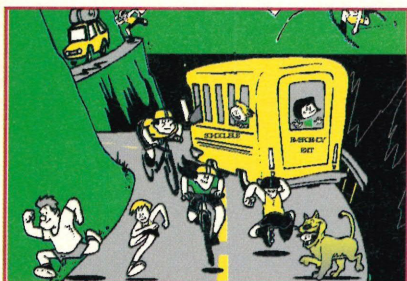
A complete range of DVS titles are available direct from the Bluepoint corporation. You can get hold of them from all good retailers for £14.99. (Call the Bluepoint corporation on 01908 277007 for a free catalogue). On *CD Review*, you'll find this month's offers in the directory PFC, which has three further directories: PHOTOS, CLIPART and FONTS.

*Alps Thin Italic* **Beach Normal**  
**Catchup Normal** **Downtown Normal** **ENVIEW Normal**  
**Frank Condensed normal** *Gaston Normal* **KOSHER Normal** **LISTE Normal** *Mystic*  
**Normal** **PALAMINO Normal**  
*Parade Normal*

This month's selection of fonts.



Just one of 12 PhotoCD images on the disc.



12 clip art pics– what the blazes is going on?

## Essential Selection

A whole stack of vital tools are filed under the PC Essentials section of our menu.

### Direct X

Developed by Microsoft, DirectX increases the speed of graphics and sound processing under Windows 95.

### Video

Run-time versions of two video players: Quick Time for Windows 2.03 and Video for Windows 1.1.

### Graphics

Paintshop Pro is our favourite graphics utility. You'll find both Windows 95 and Windows 3.1 versions on the disc.

### Compression

With Winzip, you can free up hard disk space and also shift bytes on-line for less money.

### Win32

A lot of Windows 3.1 programs require you to have Win 32 installed. Ta-dah! Register it if you keep it.

## Troubleshooters guide to CD Review

### Having a problem?

If you're having a problem with a *CD Review* demo we suggest you first read the corresponding entry in these disc pages. If you can see the files on your CD then the chances are that you don't have a faulty CD and may need to read through the Memory section below. If, on the other hand, your CD-ROM drive refuses to run, or read the disc, then you should send your CD to the address below and a new, working version will be returned to you within 28 days.  
 PCR59 CD Returns, Trevor Witt,  
 30 Monmouth Street, Bath, BA1 2BW

### Windows 95

Some DOS Games have problems running in Windows 95. We've included an option to run all the DOS games that we know work in Windows 95 from our menu, but we can't guarantee they will work on all systems. If you find you're having trouble running a DOS game in Windows 95 then try running it from our DOS Menu. First select Restart in DOS Mode from our ShutDown Menu, then when DOS has started type D:\PCR, where D is the prompt of your CD Drive.

### Install and run options

Make sure you select the default installation path for all demos, otherwise when you click the Run button nothing will happen.

### Memory

Configuring your PC with just the right amount of free memory can be a tricky as crossing the Alps single-handed, but don't worry, simply follow these easy tips and everything should be fine.

If you have trouble running a demo it might be because you need to free up more conventional memory. Conventional memory is the memory below 640k. Even if you have a PC with 8Mb of RAM, that doesn't mean that you'll automatically have enough conventional memory to run a *CD Review* demo.

To find out how much free conventional memory you have type MEM [Enter] at the DOS prompt. If the figure beside the line 'largest executable program size' is less than about 550k then you're system probably isn't set-up properly.

You can free up more conventional memory by loading the EMM386 driver, which allows you to move other device drivers out of conventional memory and into upper memory, thus freeing up more space. To add the EMM386 driver you need to edit your system files (the AUTOEXEC.BAT and CONFIG.SYS files). It is always a good idea to make a copy of them before editing them. At the C:\> prompt type:

```
COPY C:\CONFIG.SYS CONFIG.BAK
COPY C:\AUTOEXEC.BAT AUTOEXEC.BAK
Then, if you have any problems later on you can return to these files by typing:
COPY C:\CONFIG.BAK CONFIG.SYS
COPY C:\AUTOEXEC.BAK AUTOEXEC.BAT
To edit your system files type EDIT followed by the name of the file. The following lines should be in your CONFIG.SYS file:
DEVICE=C:\DOS\HIMEM.SYS
DEVICE=C:\DOS\EMM386.EXE NOEMS
DOS=HIGH, UMB
Any lines starting with DEVICE should be changed to DEVICHIGH.
In the AUTOEXEC.BAT any device being loaded should now be loaded into high memory. For example the line:
C:\MOUSE.MOUSE should read:
LH C:\MOUSE.MOUSE
```

These changes should result in greater free conventional memory. Another way to free up more conventional memory is to remove any Terminate and Stay Resident (TSR) programs that are automatically loaded by the system files. The following lines are not essential for using *CD Review*. If you see them in your system files, disable them by putting REM at the start of the line.

In Config.sys you may want to remove any line containing SMARTDRV.SYS, DISPLAY.SYS or COUNTRY.SYS.

In Autoexec.bat you could remove any line containing SMARTDRV or DOSKEY and any line that loads a memory resident virus checker.

You can return your system to its previous state by removing the REM commands, then rebooting your system. Remember any change to a system files will not take effect until your system has been rebooted.

### EMS Memory

Some PC games require EMS memory rather than XMS memory. To configure your PC for EMS memory change the line in your CONFIG.SYS reading:  
 DEVICE=C:\DOS\EMM386.EXE NOEMS to:  
 DEVICE=C:\DOS\EMM386.EXE RAM  
 and reboot your machine for the changes to take effect. You will probably have to change back to XMS memory by reversing the above change for your other programs to work.

### DirectX

DirectX is a series of drivers developed by Microsoft to increase the speed of graphics and sound processing under Windows 95. In particular, games and multimedia applications demand the fastest possible display performance. The drivers are still in development however, and there have been reports of DirectX overwriting default graphics drivers and thus crashing Windows 95.

If, after running a DirectX demo from *CD Review*, you experience graphics problems when restarting Windows 95, you will need to restore the original drivers. To do this:

1. Shut down your PC.
2. Restart Windows in safe mode. To do this, press F8 when your PC reports it is 'Starting Windows 95'. Then select 'Safe Mode' from the menu.
3. At the desktop, insert the *CD Review* disc. Press Start and then select Run from the Taskbar.
4. At the prompt type D:\DIRECTX\DXSETUP.EXE (where D: refers to the letter of your CD drive).
5. The DirectX set-up program will now appear. Select 'Restore Windows 95 Drivers' to return your PC to normal.

We should add these are problem are rare, and they should not put you off enjoying the contents of *CD Review*.

### Disclaimer

*CD Review* is thoroughly checked for all known viruses, and independently certified before duplication. While every care is taken in selection, testing and installation of *CD Review*, Future Publishing cannot accept responsibility for loss or damage occurring during its use. You are strongly advised to have recent, verified back-ups of all important files before installing any new software.

### Support

If you need help getting a demo to work then phone our technical support line on 01225 442244 and ask for Trevor Witt. Better still, e-mail him on support@futurenet.co.uk.

## RUNNING PROGRAMS MANUALLY

### Windows 3.1

To run a program manually using Windows 3.1 select File from the Windows *Program Manager* menu, then select Run from the pull-down menu. Use the Browse option to select the directory, and then the file. Double click on the file name to run it.

### Windows 95

Using Windows 95, click the Start button from the menu bar, then select Run. Use the browse option to select the directory, and then the file.

### DOS

Type CD followed by the directory name at the DOS prompt of your CD-ROM drive, then press [Enter]. Finally, type the name of the file and press [Enter].

Here's a list of the executable files you need to run (assuming your CD-ROM drive is D:\)

## Program directory and filename

**Baseball Pro '96**  
 D:\GAMES\BASEBALL\SETUPEXE  
**A Brief History of Time**  
 D:\INSTALL EXE  
**Archimedeian Dynasty**  
 D:\GAMES\AD\_DEMO\INSTALL.BAT  
**AutoSketch**  
 D:\SKETCH.EXE  
**Page Plus 2.0**  
 D:\PPPLUS\INSTALL.EXE  
**FormZ Render Zone**  
 D:\WORKS\RZ\_DEMO\RZ\_DEMO.EXE  
**Albion**  
 D:\GAMES\ALBIDEMO\SETUPEXE  
**Pinball Construction Kit**  
 D:\GAMES\CONKIT\SETUPEXE  
**Shattered Steel**  
 D:\GAMES\SSTEEL\INSTALL.EXE  
**Marathon 2**  
 D:\GAMES\M2DEMO\SETUPEXE  
**Quake 1.01**  
 D:\GAMES\QUAKE101\INSTALL.BAT  
**Hind**  
 D:\GAMES\HIND\INSTALL.BAT  
**Cakewalk Pro Audio 5.0**  
 D:\WORKS\CWPA50D\SETUPEXE  
**Eradicator**  
 D:\GAMES\ERADIC\INSTALL.BAT  
**Pac-Man**  
 D:\GAMES\PACMAN\ROATRIAL.EXE  
**PC Cillin Lite**  
 D:\WORKS\PCCILIT2\PCCWIN.EXE  
**Entertainment On-Line**  
 D:\EON\SETUPEXE  
**Catz**  
 D:\MULTIMED\CATZ\SETUPEXE  
**Calibra 1.4**  
 D:\SHWARE\CALIBRA\SETUPEXE  
**Internet Marauder**  
 D:\SHWARE\MARAUDER\SETUPEXE  
**Daub 2.1**  
 D:\SHWARE\DAUB\INSTALL.EXE  
**MediaBlaze 2.5**  
 D:\SHWARE\MEDIAB\SETUPEXE  
**NeoDraw**  
 D:\SHWARE\NEODRAW\SETUPEXE  
**Ultimate**  
 D:\ULTIMATE.EXE

# The Complete Internet Revenge Manual

When it comes to revenge,  
nothing is more effective than a  
cadaver delivered to your door...

Part 2

The Shelby Institute of Home Learning  
15 Upper Turnham Street, Charing Cross, London WC2 7TA

Dear Sir or Madam,

Thank you for returning your completed e-mail application and registration fee. We are pleased to announce that you have now been enrolled at the Shelby Institute of Home Learning on our Pathology by Post course which begins next week. With the growing interest in forensic science, pathology continues to be a popular career choice for the 1990s. Our Pathology by Post course and the qualifications it gives are officially recognised by the Home Office, who helped design this course and who act as consultants.

Although this is a recent addition to our wide range of correspondence courses, over seventy successful graduating students have already secured well paid positions as pathologists both here and abroad.

Since your initial enquiry there has been a minor amendment to the course structure and the new prospectus is set out below.

Yours sincerely,

E G Cowan  
Director Of Studies

We show exactly how to spoof victims – that's the art of sending phony e-mails on our Web site (<http://futurenet.co.uk>). But remember, you never heard it from us, OK?

*The Complete Internet Revenge Manual* is brought to you by Mark Leigh and Mike Lapine. If you like this, then you'll love their latest book. *The Office Revenge Kit* is published by Virgin Books in November 1996 and contains 90 of the most despicable and downright spiteful ways to get your own back at people in the office, like bitchy secretaries, flash salesmen, boring bosses – even pompous chief executives. In fact, anyone can be targeted, effectively and anonymously, with one of the authentic looking memos, letters, faxes, notices or other items from the kit. Simply add their name and stick it in the internal post, under the photocopier, by the fax machine or on their desk. Revenge is sweet – and hasn't ever been so simple or so much fun.

## **PATHOLOGY BY POST**

1996-97 Prospectus

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A fresh cadaver will be delivered to your door each week\* in a vacuum-sealed body bag, accompanied by a set of comprehensive course notes. These will give details of the victim, circumstances of the case and advice as to performing the post mortem. Initially the cause of death will be easy to identify, but will become more difficult as the course progresses.

By Week 60 you should recognise different bullets by their characteristic exit wounds and to identify eight types of poison by examining the contents of a victim's colon and rectum.

Infamous murders are recreated and used as 'case histories' for students. In each case the body is supplied in exactly the same condition that it was discovered. For example, in the case of Jack the Ripper's 4th victim, the body will be supplied with heart removed, face stripped of skin and entrails slung over the left shoulder.

The final ten weeks of the course are taken up by practicing surgical procedures and revising the technicalities of brain death, blood loss and asphyxiation.

Our tutors are in regular communication with students for the duration of the course and make personal visits every six weeks to check on progress.

(Course fees do not include surgical instruments. These may be purchased separately from any medical equipment supplier; a 5% discount on retail prices will be available on presentation of a printout of this e-mail).

**IMPORTANT:** Please remember to advise us at least two weeks in advance when you are going on holiday so that we may postpone delivery of specimens.

\* The special Pathology By Post 'crash course' (involving 3 bodies per week, but requiring a large freezer) has now been discontinued.

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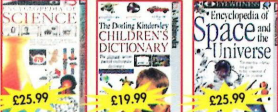
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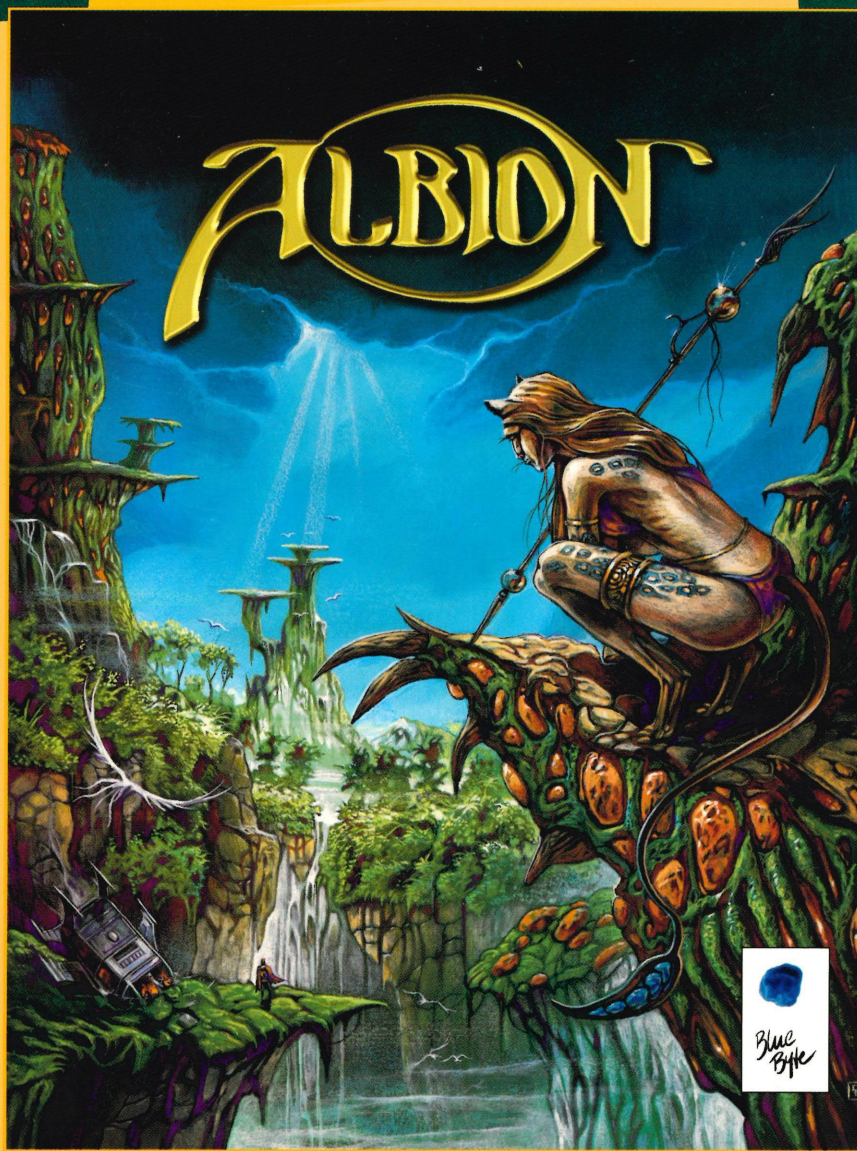
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